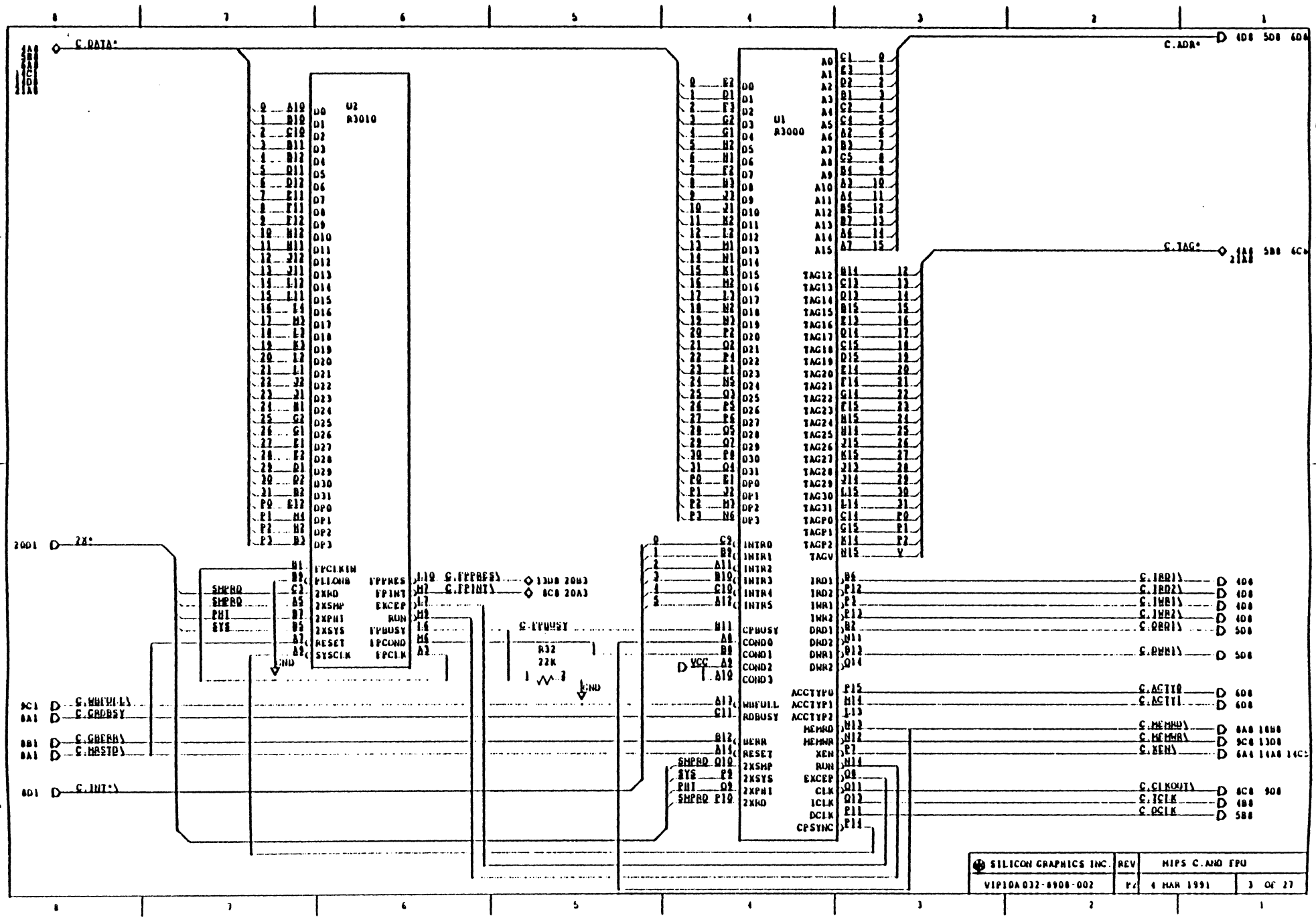
REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

APPLICATIONS				SILICON GRAPHICS INC.				
		drw		VIP10_CPU				
		chk						
		iss.						
030-8029	--------			NOM.	DRAWING NUMBER	REV	DATE	SHEET
NEXT ASSEMBLY	USED ON	APPROVALS	DATE	VIP10	032-0908-002	P2	4 MAR 1991	1 OF 27

PAGE # DESCRIPTION

03 CPU AND FPU
04 INSTRUCTION CACHE
05 DATA CACHE
06 CPU ADDRESS AND PERIPHERAL DATA BUFFERS
07 BOOT PROM, LED REGISTER, ADDRESS DECODE
08 CPU INTERRUPTS
09 CPU BUFFER ENABLES
10 DUART0: KEYBOARD AND MOUSE
11 DUART1: PORTS 1 AND 2
12 TIMER AND RTC
13 CIL1 GATE ARRAY
14 MEMORY DATA BUFFERS AND PARITY LATCH
15 INTERRUPT CONTROLLER
16 GRAPHICS I/F AND VME LOCATION MONITOR
17 VME CONTROLS, IACK AND SYSCLOCK
18 VME BUS ARBITER
19 CONSOLE
20 CPU CLOCKS, PUPS & PUDS
21 PUP & PUDS
22 I/O CONNECTORS
23 CPU to I/O BOARD CONNECTOR
24 CPU to MEMORY BOARD CONNECTOR
25 VME P1A,B,C AND P2B CONNECTORS
26 VME P2A,C CONNECTOR
27 BYPASS CAPACITORS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C.TAG*
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U1
R3000
2X*
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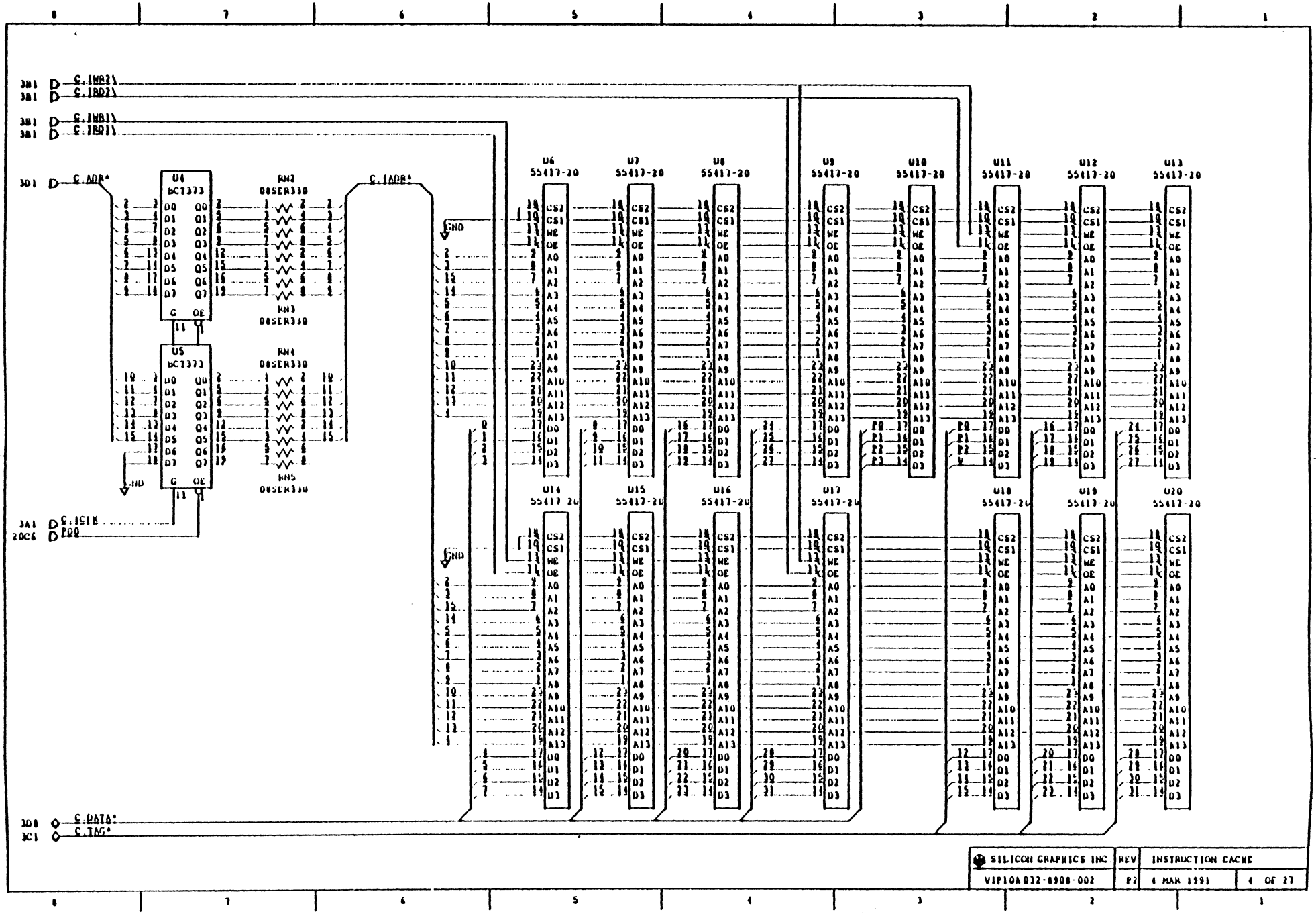
SMPRQ
PHI
SYS
RESET
SYSCLK
2XRQ
2XSMP
2XPHI
2XSYS
FPCLKIN
PLLCAP
FPPRES
FPINT
EXCEP
RUN
FPBUSY
FPCOND
FPCLK
C.FPPRES\
C.FPINT\
C.FPBUSY
R32
22K
GND
VCC
INTRQ
INTR1
INTR2
INTR3
INTR4
INTR5
CPBUSY
COND0
COND1
COND2
COND3
MHFULL
RDBUSY
MEMRQ
MEMWR
RESET
2XSMP
2XSYS
2XPHI
2XRQ
TAG12
TAG13
TAG14
TAG15
TAG16
TAG17
TAG18
TAG19
TAG20
TAG21
TAG22
TAG23
TAG24
TAG25
TAG26
TAG27
TAG28
TAG29
TAG30
TAG31
TAGP0
TAGP1
TAGP2
TAGV
IRD1
IRD2
IWR1
IWR2
DRD1
DRD2
DWR1
DWR2
ACCTYP0
ACCTYP1
ACCTYP2
MEMRD
MEMWR
XEN
RUN
EXCEP
CLK
ICLK
DCLK
CPSYNC
C.MHFUL\
C.RDBSY
C.BERR\
C.HALT\
C.INT*\
C.IRD1\
C.IRD2\
C.IWR1\
C.IWR2\
C.DRD1\
C.DWR1\
C.ACTY0
C.ACTY1
C.MEMRD\
C.MEMWR\
C.XEN\
C.CLKOUT\
C.ICLK
C.DCLK
SILICON GRAPHICS INC.
REV
MIPS C.AND FPU
VIP10A032-8908-002
4 MAR 1991
3 OF 27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C.IRD1\
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U5
BCT373
RN2
08SER330
RN3
08SER330
RN4
08SER330
RN5
08SER330
GND
C.IDIR
PDO
U6
55417-20
U7
55417-20
U8
55417-20
U9
55417-20
U10
55417-20
U11
55417-20
U12
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U13
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U14
55417-20
U15
55417-20
U16
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U17
55417-20
U18
55417-20
U19
55417-20
U20
55417-20
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C.TAG*
SILICON GRAPHICS INC.
VIP10A032-8908-002
REV
P2
INSTRUCTION CACHE
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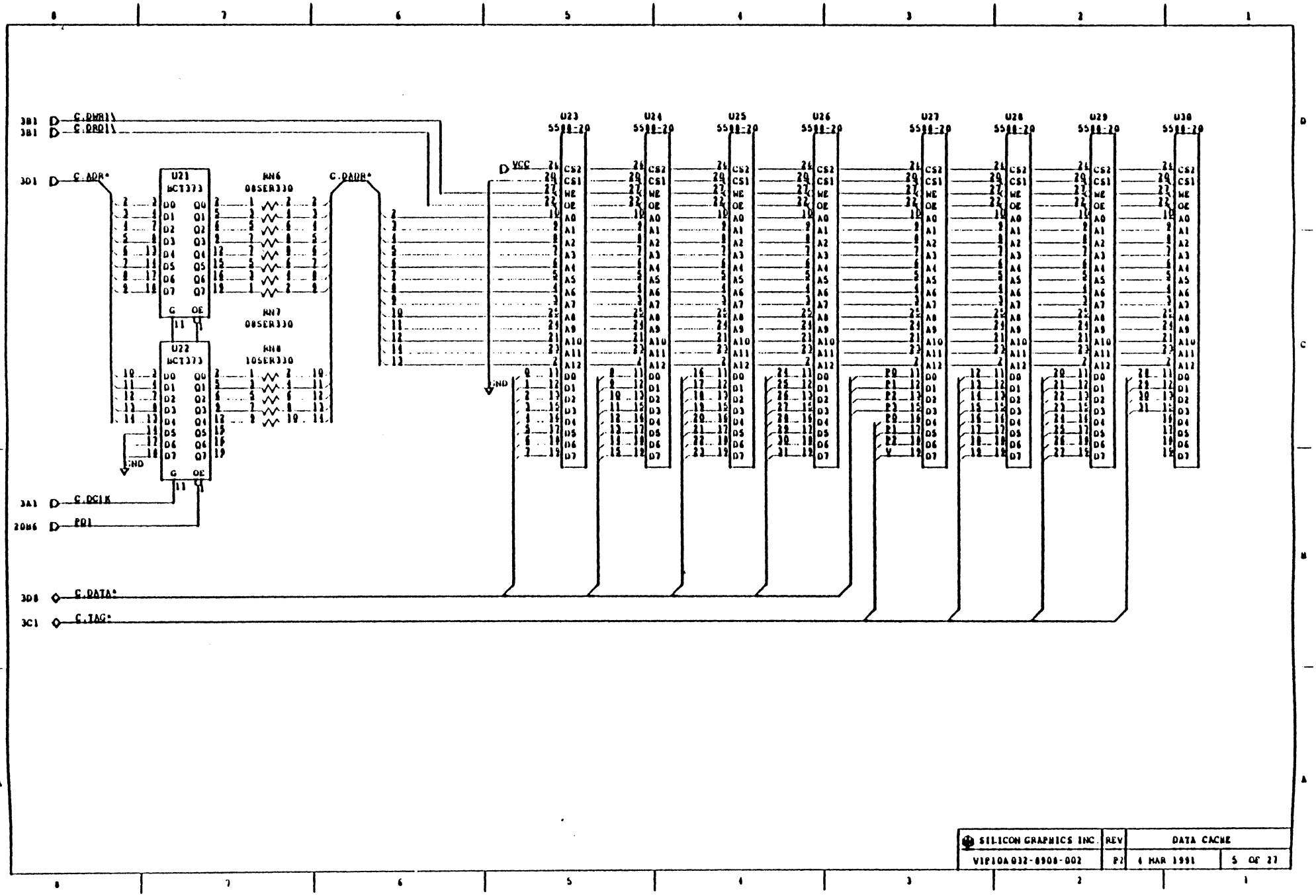
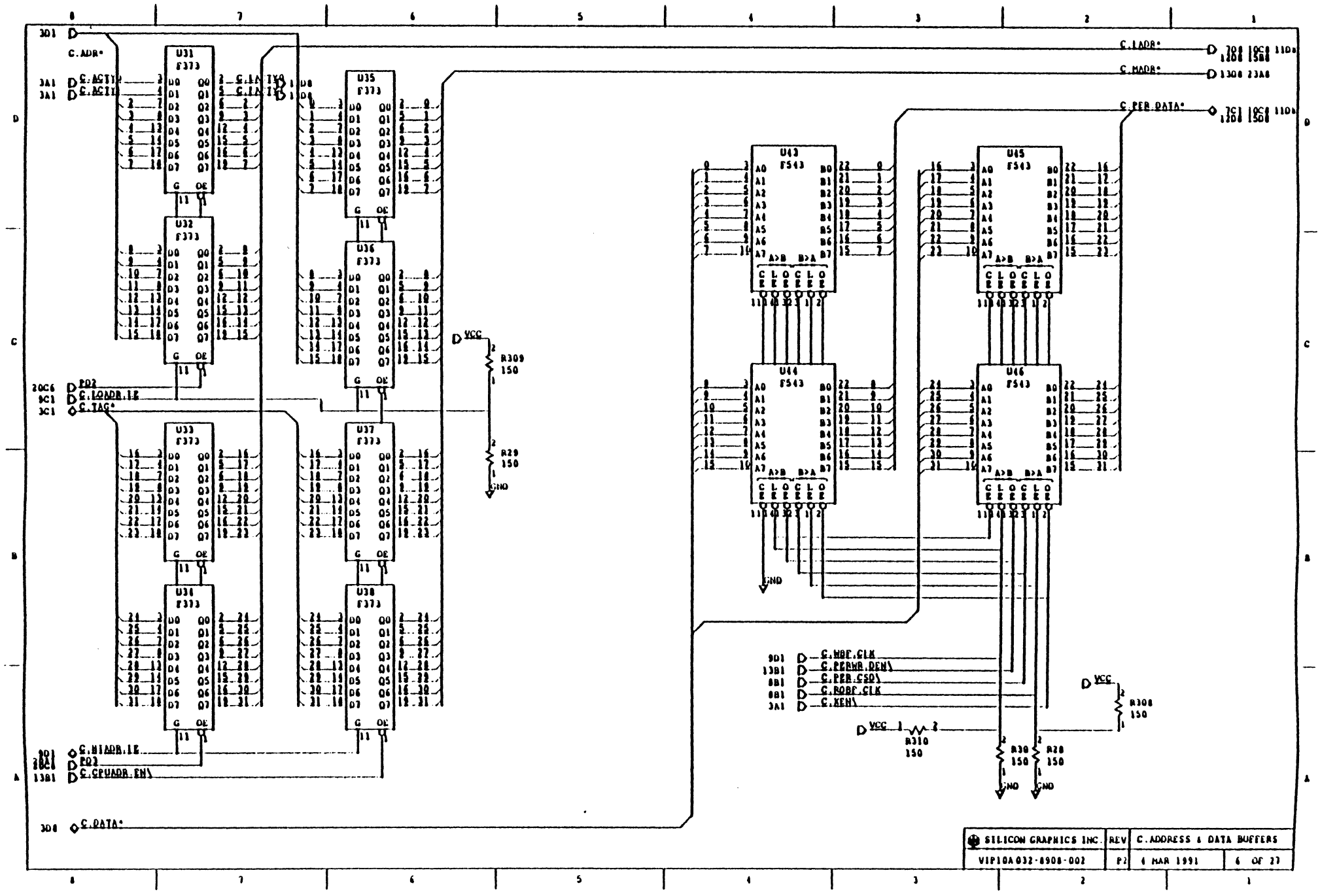


SILICON GRAPHICS INC.	REV	DATA CACHE	
VIP10A032-0908-002	P2	6 MAR 1991	5 OF 27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C.MADR*
C.PER.DATA*
C.DATA*
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U32 F373
U33 F373
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U35 F373
U36 F373
U37 F373
U38 F373
U43 F543
U44 F543
U45 F543
U46 F543
C.LOADR.LE
C.TAG*
C.HIADR.LE
C.CPUADR.EN\
C.HBF.CLK
C.PERHR.DEN\
C.PER.CSD\
C.RDBF.CLK
C.KEN\
VCC
GND
R309 150
R29 150
R310 150
R308 150
R30 150
R28 150
SILICON GRAPHICS INC.
VIP10A032-8908-002
REV
P2
C.ADDRESS & DATA BUFFERS
4 MAR 1991
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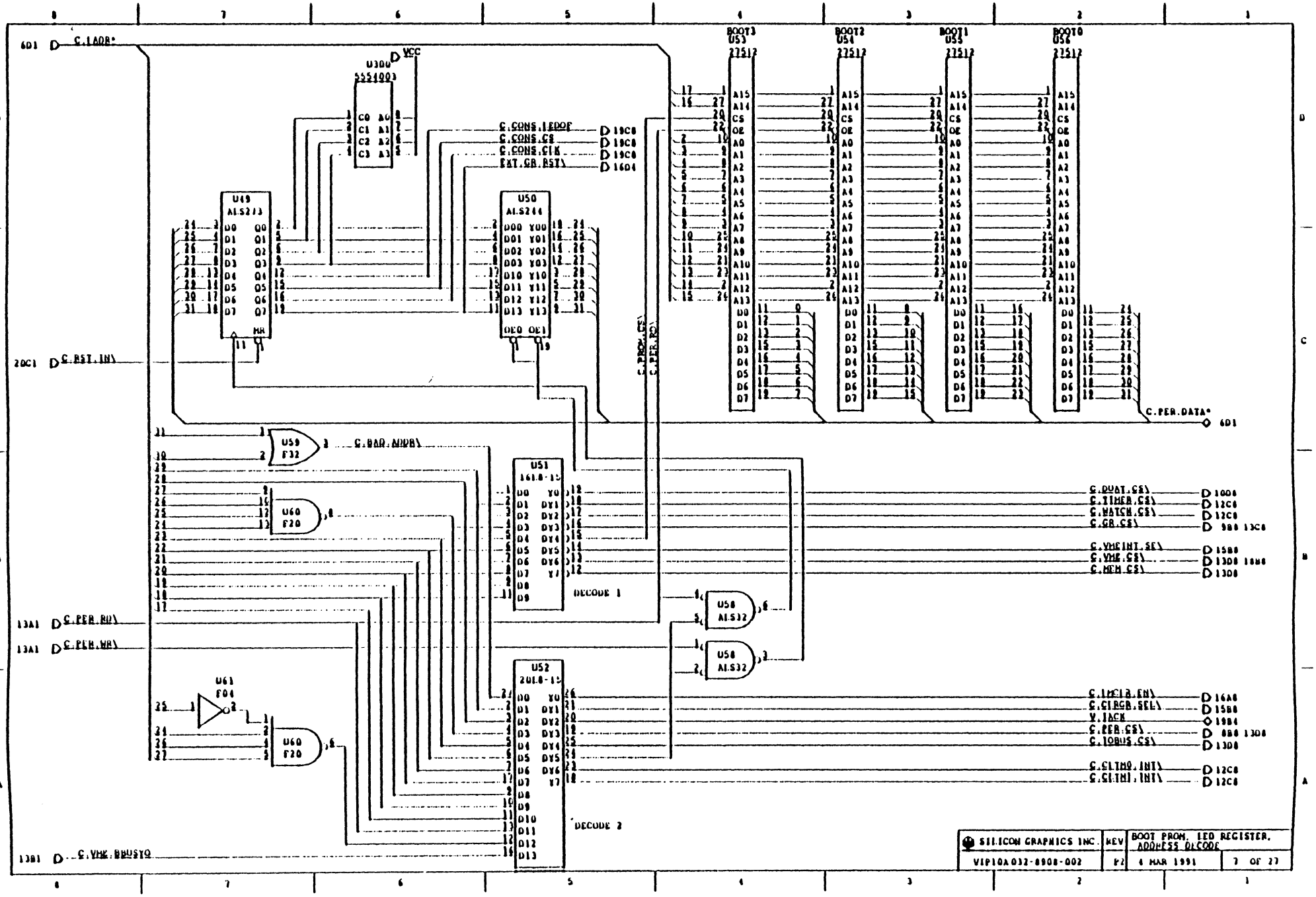
BOOT3 U53 27512
BOOT2 U54 27512
BOOT1 U55 27512
BOOT0 U56 27512
U49 AL.S273
U50 AL.S244
U300 5554003
U59 F32
U60 F20
U61 F04
U51 16L8-15
U52 20L8-15
U58 AL.S32
DECODE 1
DECODE 2
C.PER.DATA*
C.RST.IN\
C.BAD.ADDR\
C.PER.RD\
C.PER.WR\
C.VME.BBUSY0
C.DUART.CS\
C.TIMER.CS\
C.WATCH.CS\
C.GR.CS\
C.VMEINT.SE\
C.VME.CS\
C.MEM.CS\
C.IMCLR.EN\
C.CIRCB.SEL\
V.IACK
C.PER.CS\
C.IOBUS.CS\
C.CLTM0.INT\
C.CLTM1.INT\
SILICON GRAPHICS INC.
VIP10A032-0908-002
REV
P2
BOOT PROM, LED REGISTER, ADDRESS DECODE
4 MAR 1991
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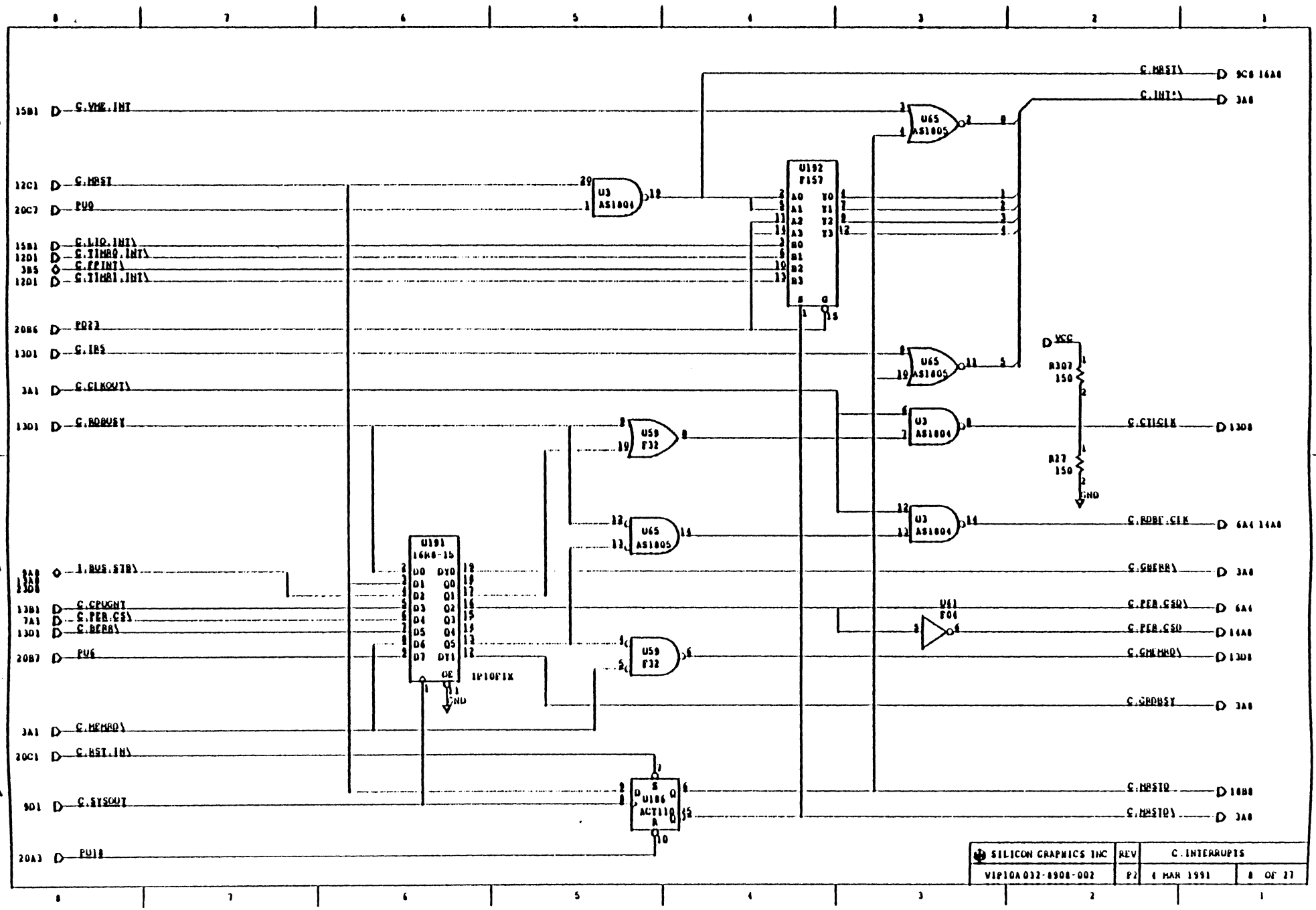
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C.INT*\
C.VME.INT
C.MRST
PU0
C.LIO.INT\
C.TIMR0.INT\
C.FPINT\
C.TIMR1.INT\
PU23
C.IRS
C.CLKOUT\
C.RDBUSY
I.BUS.STB\
C.CPUGNT
C.PER.CS\
C.BERR\
PU6
C.MEMRQ\
C.RST.IN\
C.SYSCOUT
PU18
U3 AS1804
U192 F157
U65 AS1805
U59 F32
U191 16M8-15
U186 ACT11
U61 F04
VCC
R307 150
R27 150
GND
C.CTICLK
C.RDBF.CLK
C.GMEMRQ\
C.GRDBSY
C.MRSTQ
C.MRSTQ\
C.PER.CSQ\
C.PER.CSQ
SILICON GRAPHICS INC
VIP10A032-8908-002
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P2
C.INTERRUPTS
4 MAR 1991
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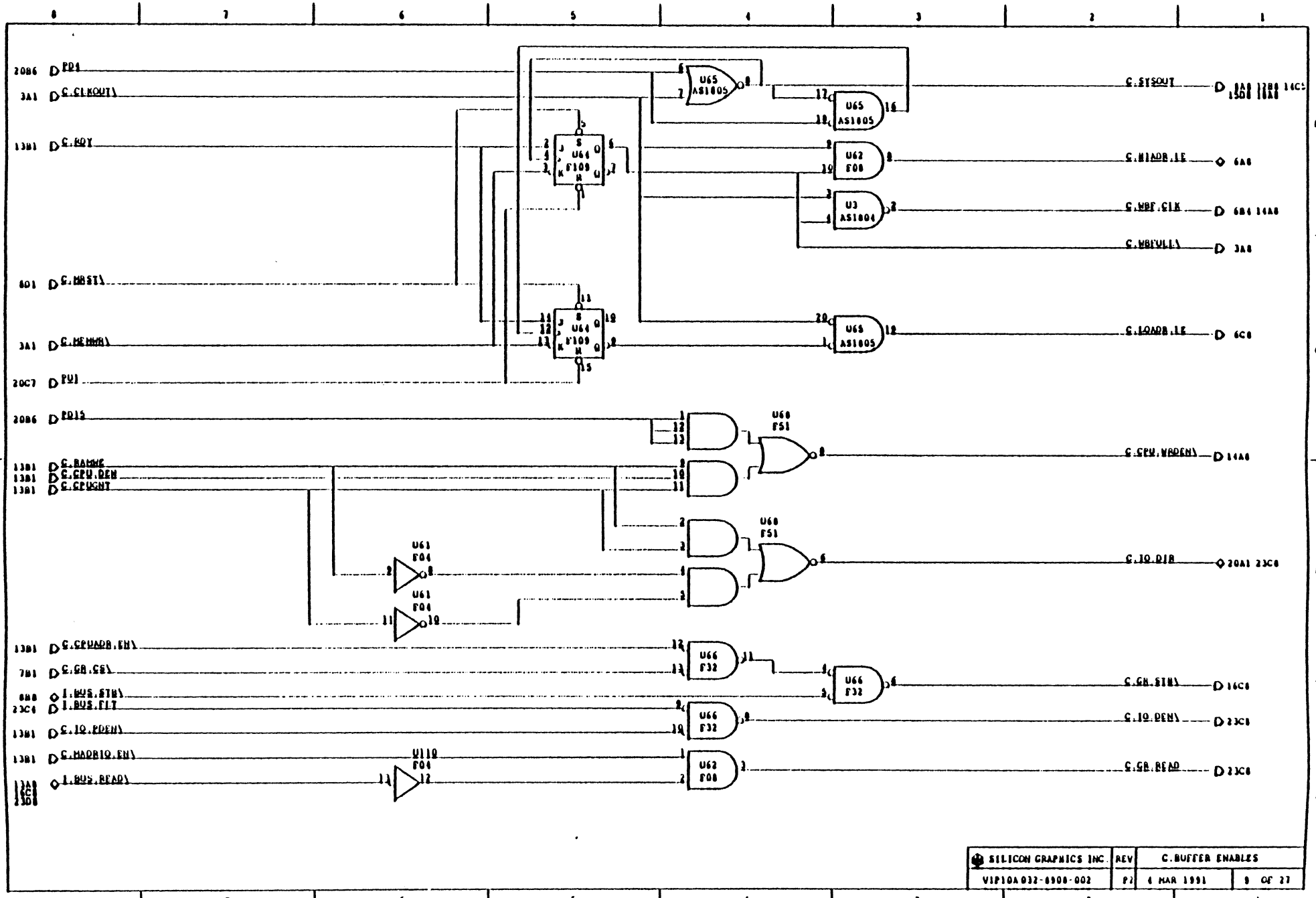
2086 D PD1
3A1 D C.CLKOUT\
1381 D C.RDY
601 D C.MBST\
3A1 D C.MEMWR\
20C7 D PU1
2086 D PD15
1381 D C.RAMWE
1381 D C.CPU.DEN
1381 D C.CPUSNT
1381 D C.CPUADR.EN\
7B1 D C.GR.CS\
6B8 I.BUS.STB\
23C4 D I.BUS.FIT
1381 D C.IO.PDEN\
1381 D C.MADBIO.EN\
1AA I.BUS.READ\
U65 AS1805
U64 F109
U62 F08
U3 AS1804
U68 F51
U61 F04
U66 F32
U110 F04
C.STSOUT
C.MIADR.LE
C.MBF.CLK
C.MBFULL\
C.LOADR.LE
C.CPU.WRDEN\
C.IO.DIR
C.GR.STB\
C.IO.DEN\
C.GR.READ
SILICON GRAPHICS INC.
VIP10A032-0908-002
REV
P2
C.BUFFER ENABLES
4 MAR 1991
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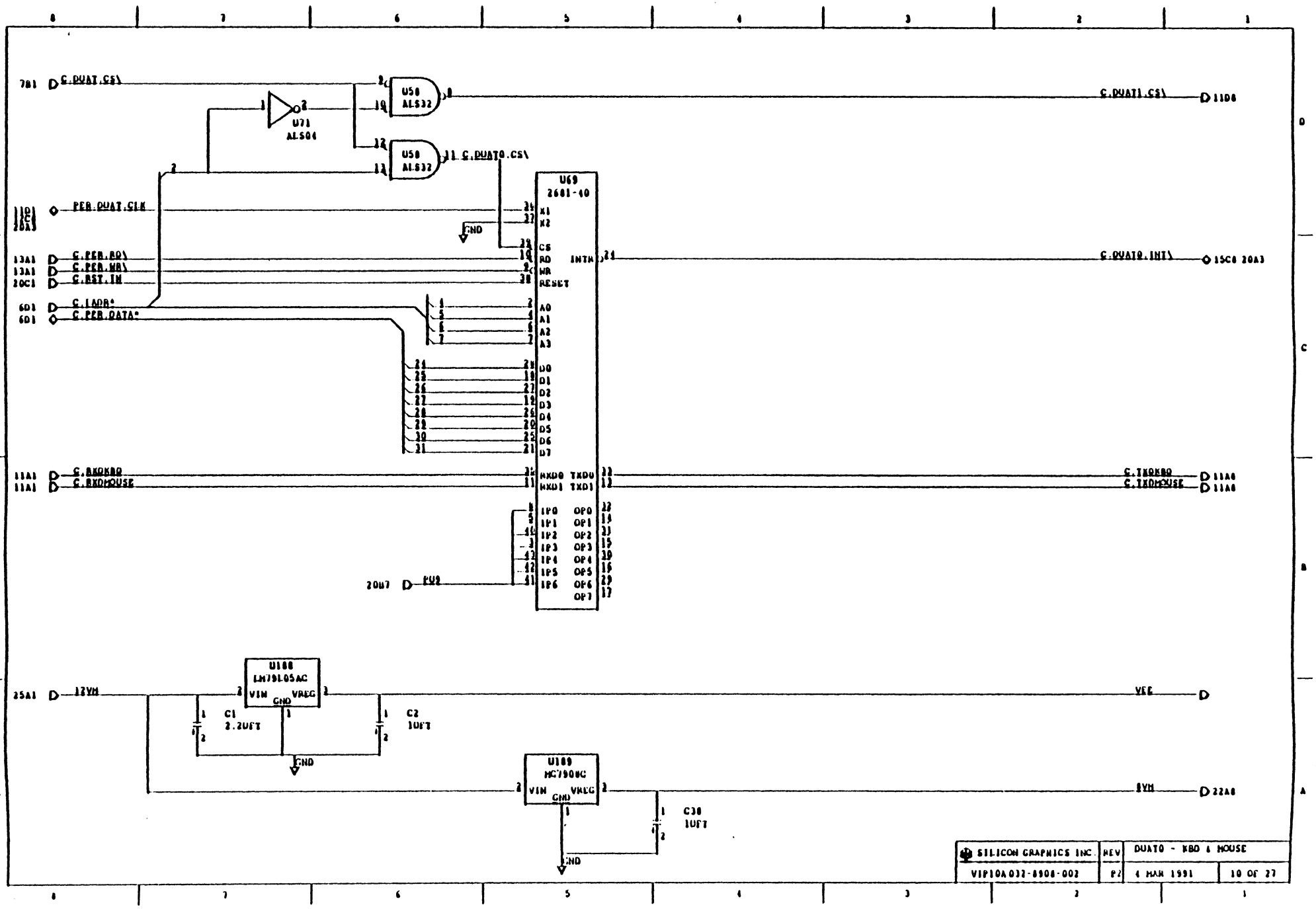
C.DUAT.CS\
U58 ALS32
U71 ALS04
C.DUAT1.CS\
C.DUAT0.CS\
U69 2681-40
PER.DUAT.CLK
GND
C.PER.RD\
C.PER.WR\
C.RST.IN
C.IADR*
C.PER.DATA*
INTR
C.DUAT0.INT\
C.RXDKBD
C.RXDMOUSE
C.TXDKBD
C.TXDMOUSE
PU8
U188 LM79L05AC
VIN
VREG
12VH
VEE
C1 2.2UFT
C2 10FT
U189 MC7900C
8VH
C38 10FT
SILICON GRAPHICS INC.
REV
DUART - KBD & MOUSE
VIP10A032-8908-002
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4 MAR 1991
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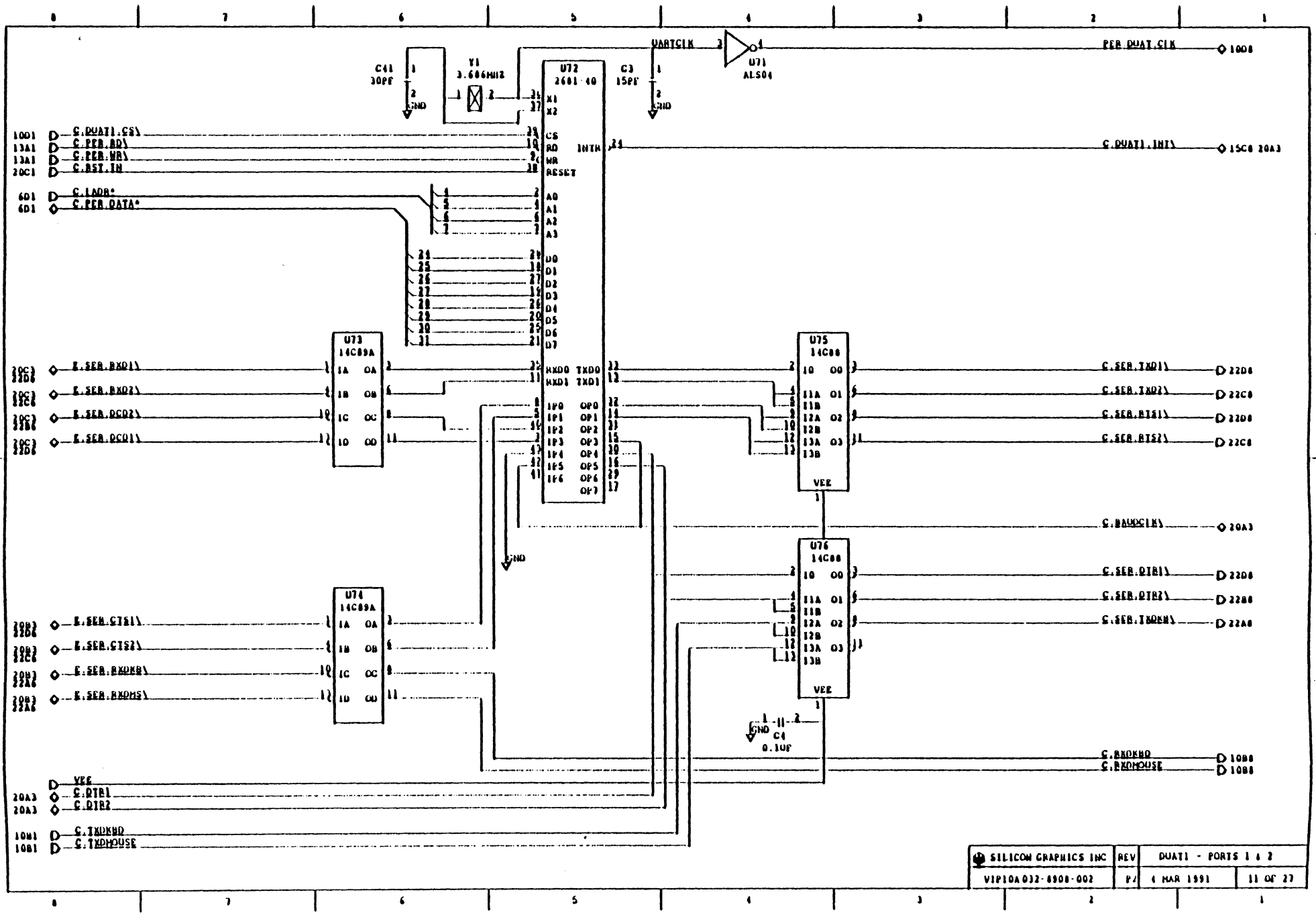
C41 30PF
Y1 3.686MHZ
U72 2681-40
C3 15PF
U71 ALS04
VARTCLK
PER.DUAT.CLK
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C.PER.RD\
C.PER.WR\
C.RST.IN
C.ADR*
C.PER.DATA*
C.DUAT1.INT\
U73 14C89A
U74 14C89A
U75 14C88
U76 14C88
E.SER.RXD1\
E.SER.RXD2\
E.SER.DSR2\
E.SER.DSR1\
E.SER.CTS1\
E.SER.CTS2\
E.SER.RXDKB\
E.SER.RXDMS\
C.SER.TXD1\
C.SER.TXD2\
C.SER.RTS1\
C.SER.RTS2\
C.SER.DTR1\
C.SER.DTR2\
C.SER.TXDKB\
C.BAUDCLK\
C.RXDKBD
C.RXDMOUSE
C.DTR1
C.DTR2
C.TXDKBD
C.TXDMOUSE
VEE
GND
C4 0.1UF
SILICON GRAPHICS INC
VIP10A032-0508-002
REV
P2
DUAT1 - PORTS 1 & 2
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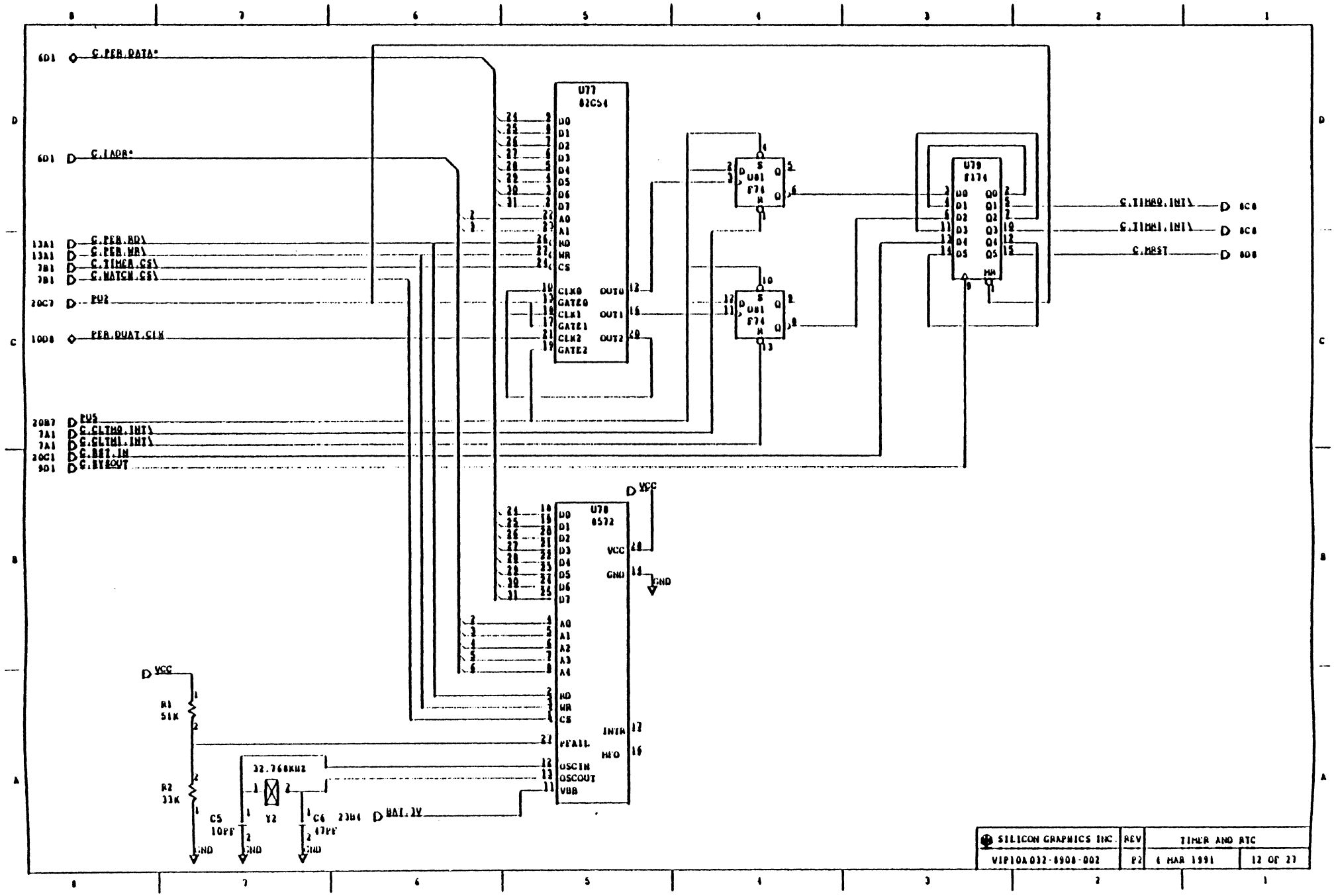
C.PER.DATA*
C.IADR*
C.PER.RD\
C.PER.WR\
C.TIMER.CS\
C.WATCH.CS\
PU2
PER.DUAT.CLK
PU5
C.CLTM0.INT\
C.CLTM1.INT\
C.RST.IN
C.BYEOUT
U77
82C54
D0
D1
D2
D3
D4
D5
D6
D7
A0
A1
RD
WR
CS
CLK0
GATE0
CLK1
GATE1
CLK2
GATE2
OUT0
OUT1
OUT2
U81
F74
U79
F174
CLR
C.TIM0.INT\
C.TIM1.INT\
C.MRST
U78
8572
VCC
GND
A2
A3
A4
PFAIL
INTR
MOT
OSCIN
OSCOUT
VBB
BAT.3V
R1
51K
R2
33K
32.768KHZ
Y2
C5
10PF
C6
22PF
SILICON GRAPHICS INC.
VIP10A032-0908-002
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TIMER AND RTC
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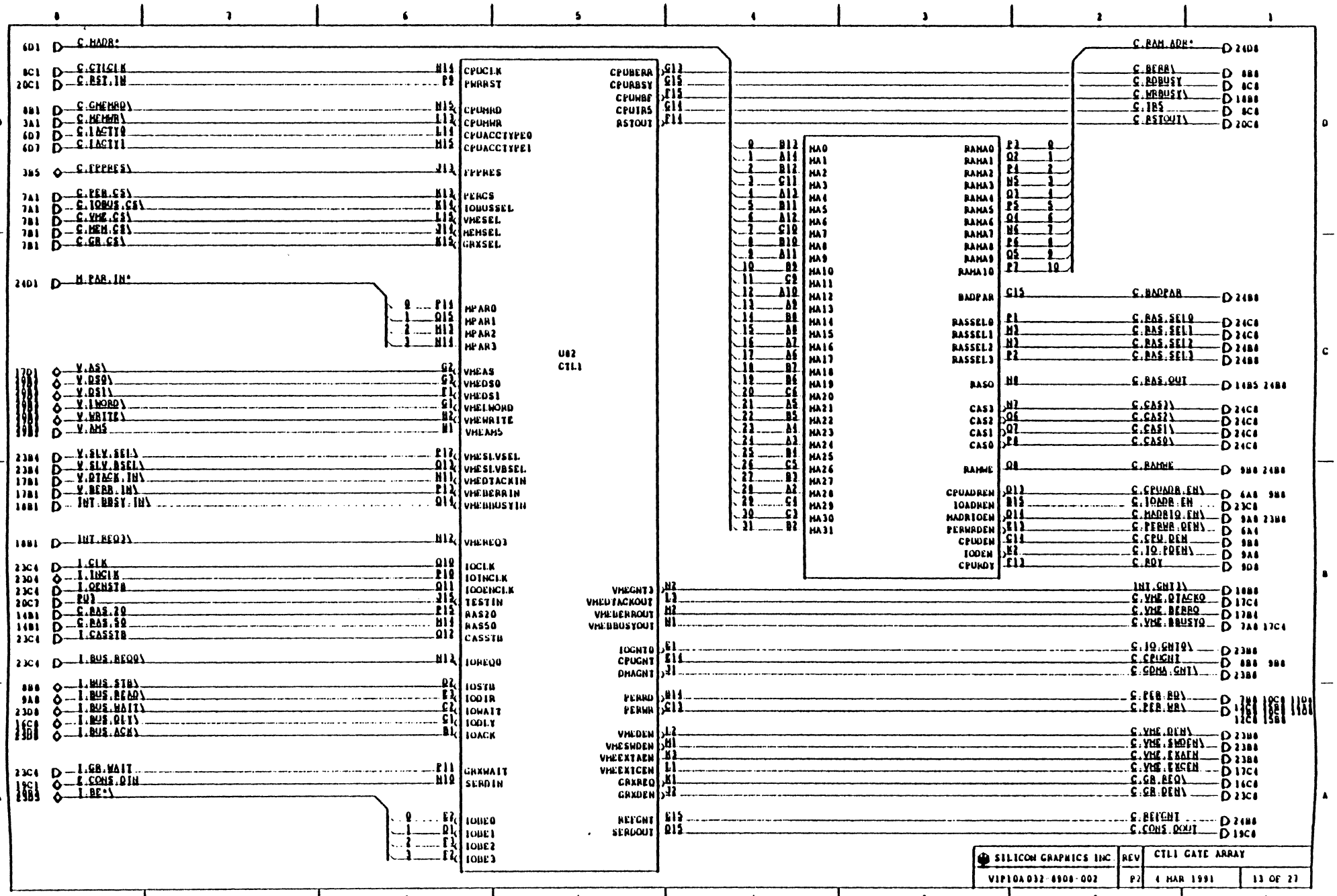
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C.CTLCLK
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C.MEMWR\
C.IACTI0
C.IACTI1
C.IPPRES\
C.PER.CS\
C.IOBUS.CS\
C.VME.CS\
C.MEM.CS\
C.GR.CS\
M.PAR.IN*
V.AS\
V.DS0\
V.DS1\
V.IWORD\
V.WRITE\
V.AM5
V.SLV.SEL\
V.SLV.BSEL\
V.DTACK.IN\
V.BERR.IN\
INT.BUSY.IN\
INT.REQ3\
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I.INCLK
I.OENSTB
PU3
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C.RAS.S0
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I.BUS.STB\
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I.BUS.WAIT\
I.BUS.DLY\
I.BUS.ACK\
I.GR.WAIT
E.CONS.DIN
I.BE*\
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CPUMRD
CPUMWR
CPUACCTYPE0
CPUACCTYPE1
IPPRES
PERCS
IOBUSSEL
VMESEL
MEMSEL
GRXSEL
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MPAR1
MPAR2
MPAR3
VMEAS
VMEDS0
VMEDS1
VMEIWORD
VMEWRITE
VMEAM5
VMESLVSEL
VMESLVBSEL
VMEDTACKIN
VMEBERRIN
VMEBBUSYIN
VMEREQ3
IOCLK
IOINCLK
IOOENCLK
TESTIN
RAS2D
RAS50
CASSTB
IOREQ0
IOSTB
IOOIR
IOWAIT
IODLY
IOACK
GRXWAIT
SERDIN
IOBE0
IOBE1
IOBE2
IOBE3
CPUBERR
CPUBSY
CPUMBF
CPUIRS
RSTOUT
REFGNT
SERDOUT
MA0
MA1
MA2
MA3
MA4
MA5
MA6
MA7
MA8
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MA17
MA18
MA19
MA20
MA21
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MA23
MA24
MA25
MA26
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MA28
MA29
MA30
MA31
RAMA0
RAMA1
RAMA2
RAMA3
RAMA4
RAMA5
RAMA6
RAMA7
RAMA8
RAMA9
RAMA10
BADPAR
RASSEL0
RASSEL1
RASSEL2
RASSEL3
RASO
CAS3
CAS2
CAS1
CAS0
RAMWE
CPUADREN
IOADREN
MADRIOEN
PERRADEN
CPUDEN
IODEN
CPURDY
VMEGNT3
VMEDTACKOUT
VMEBERROUT
VMEBBUSYOUT
IOGNT0
CPUGNT
DMAGNT
PERRD
PERRW
VMEDEN
VMESWDEN
VMEEXTAEN
VMEEXTCEN
GRXREQ
GRXDEN
C.RAM.ADR*
C.BERR\
C.ROBUSY
C.WRBUSY\
C.IRS
C.RSTOUT\
C.BADPAR
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C.RAS.SEL1
C.RAS.SEL2
C.RAS.SEL3
C.RAS.OUT
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C.CAS2\
C.CAS1\
C.CAS0\
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C.IOADR.EN
C.MADRIO.EN\
C.PERWR.DEN\
C.CPU.DEN
C.IO.DEN\
C.RDY
INT.GNT1\
C.VME.DTACKO
C.VME.BERRO
C.VME.BBUSYO
C.IO.GNT0\
C.CPUGNT
C.GDMA.GNT\
C.PER.RD\
C.PER.WR\
C.VME.DEN\
C.VME.SWDEN\
C.VME.EXAEN
C.VME.EXCEN
C.GR.REQ\
C.GR.DEN\
C.REFGNT
C.CONS.DOUT
SILICON GRAPHICS INC
REV
CTL1 GATE ARRAY
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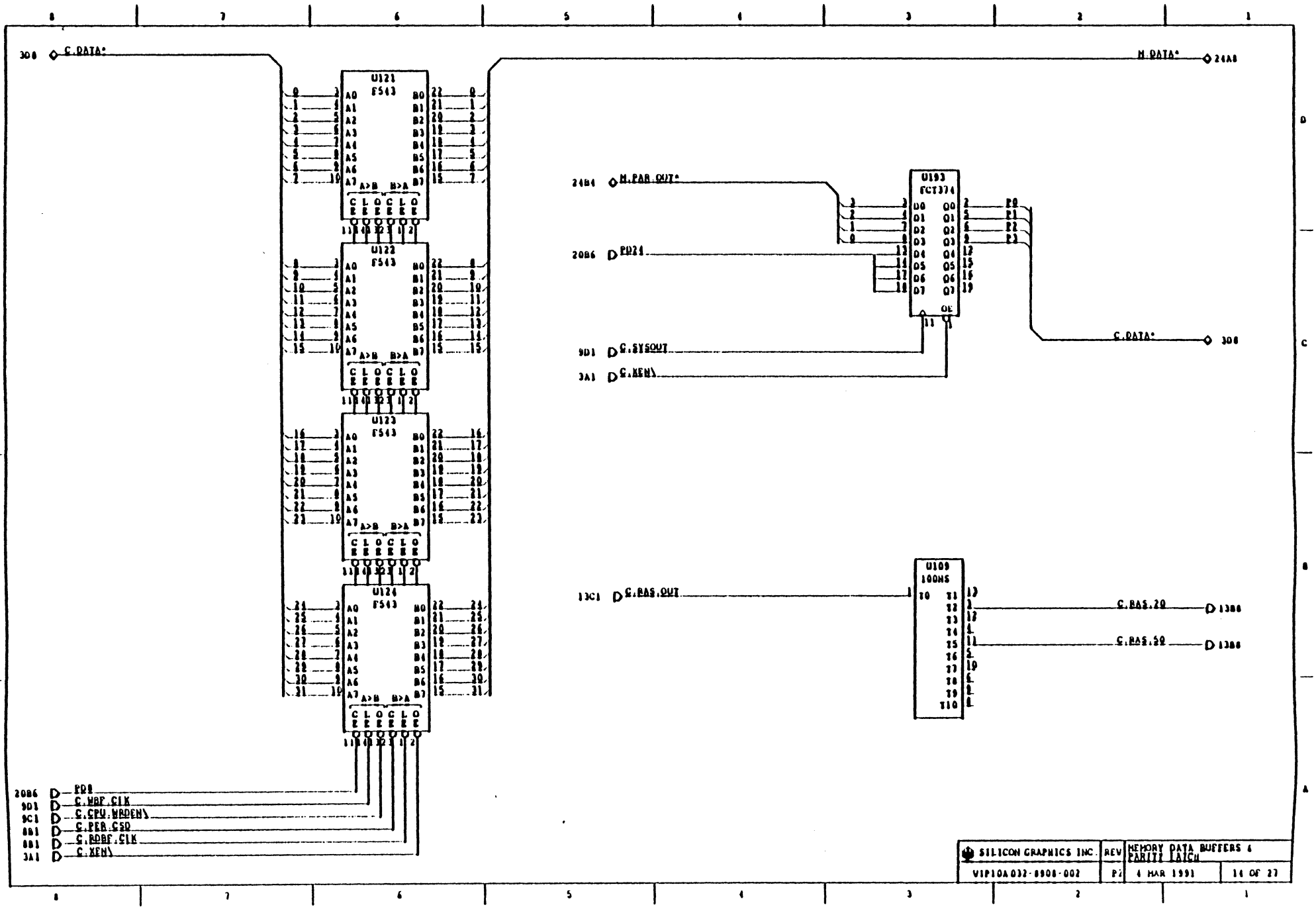
C.DATA*
M.DATA*
U121
U122
U123
U124
F543
M.PAR.OUT*
PD24
C.SYSOUT
C.XEN\
U193
FCT374
C.DATA*
C.RAS.OUT
U109
100NS
C.RAS.20
C.RAS.50
PD8
C.MBF.CLK
C.CPU.MRDEN\
C.PER.CSO
C.RDBF.CLK
C.XEN\
SILICON GRAPHICS INC.
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MEMORY DATA BUFFERS & PARITY LATCH
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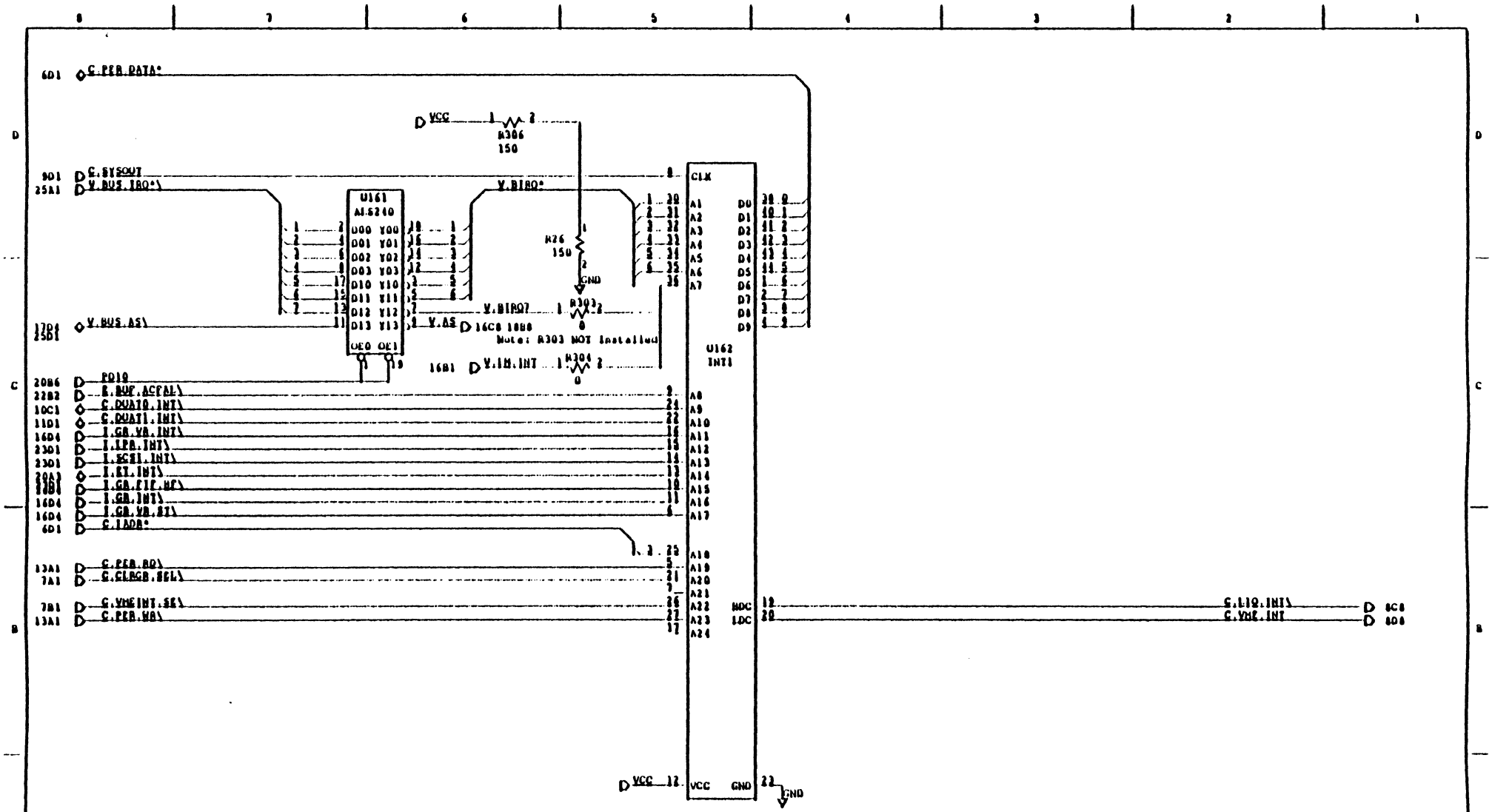
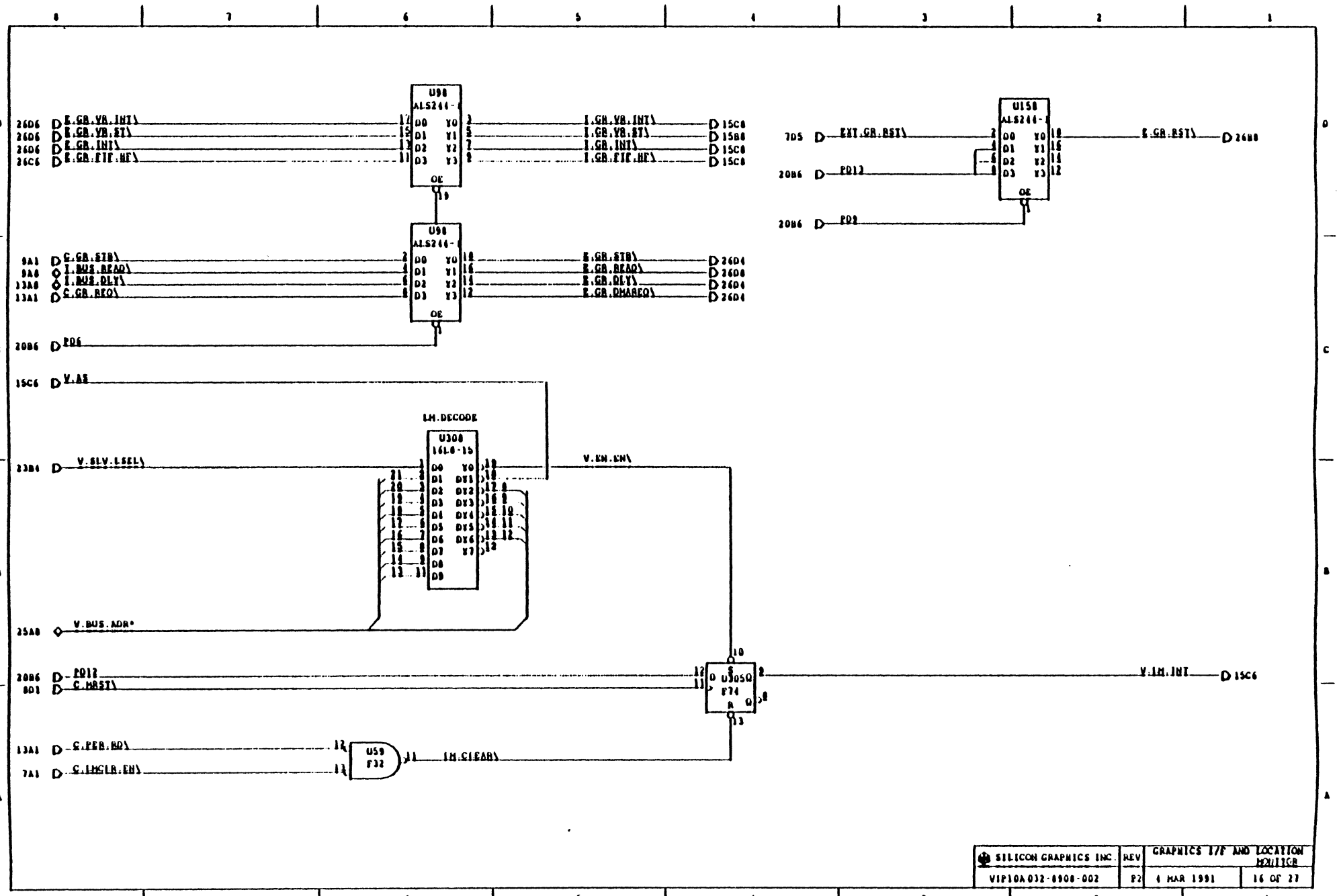
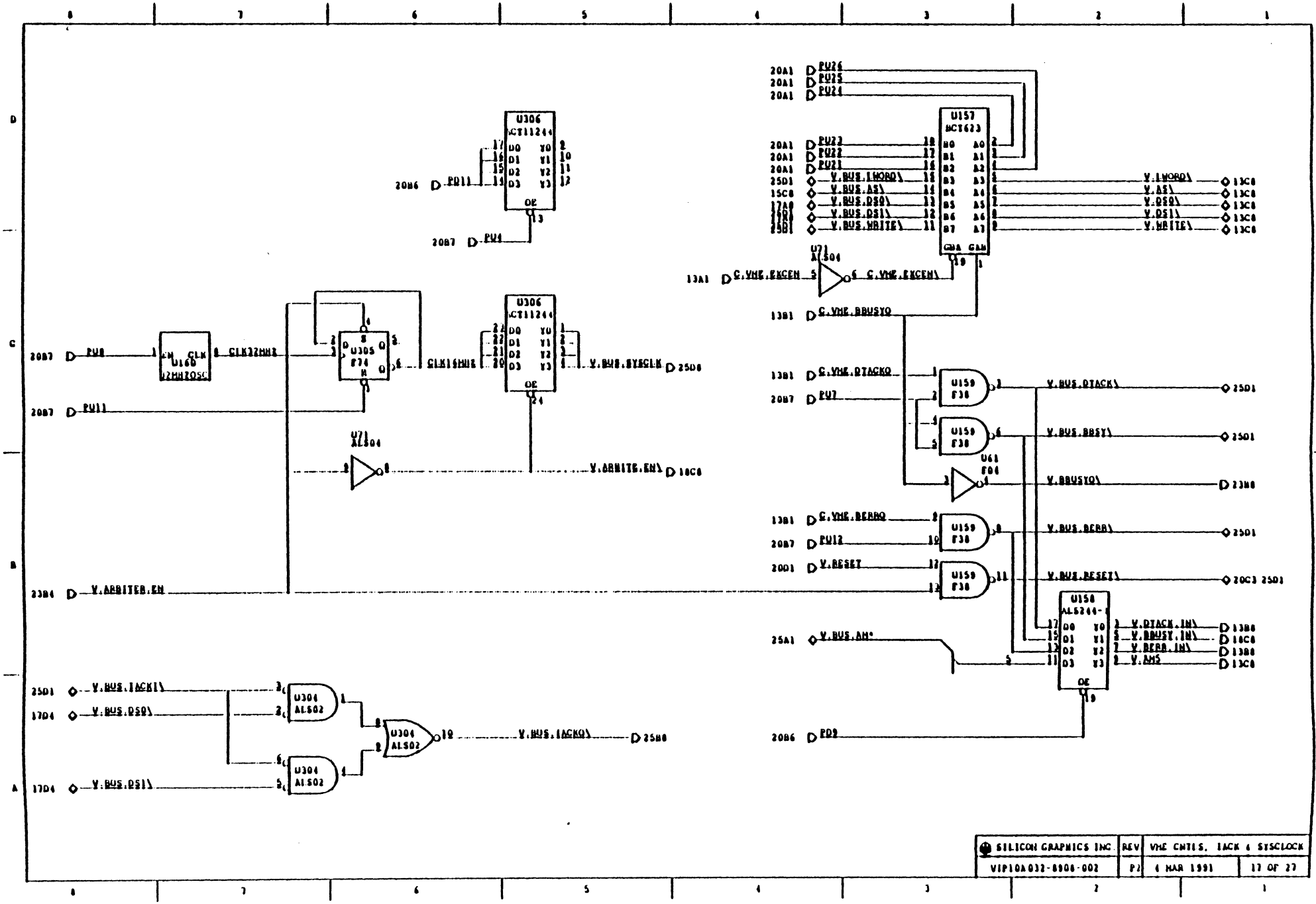


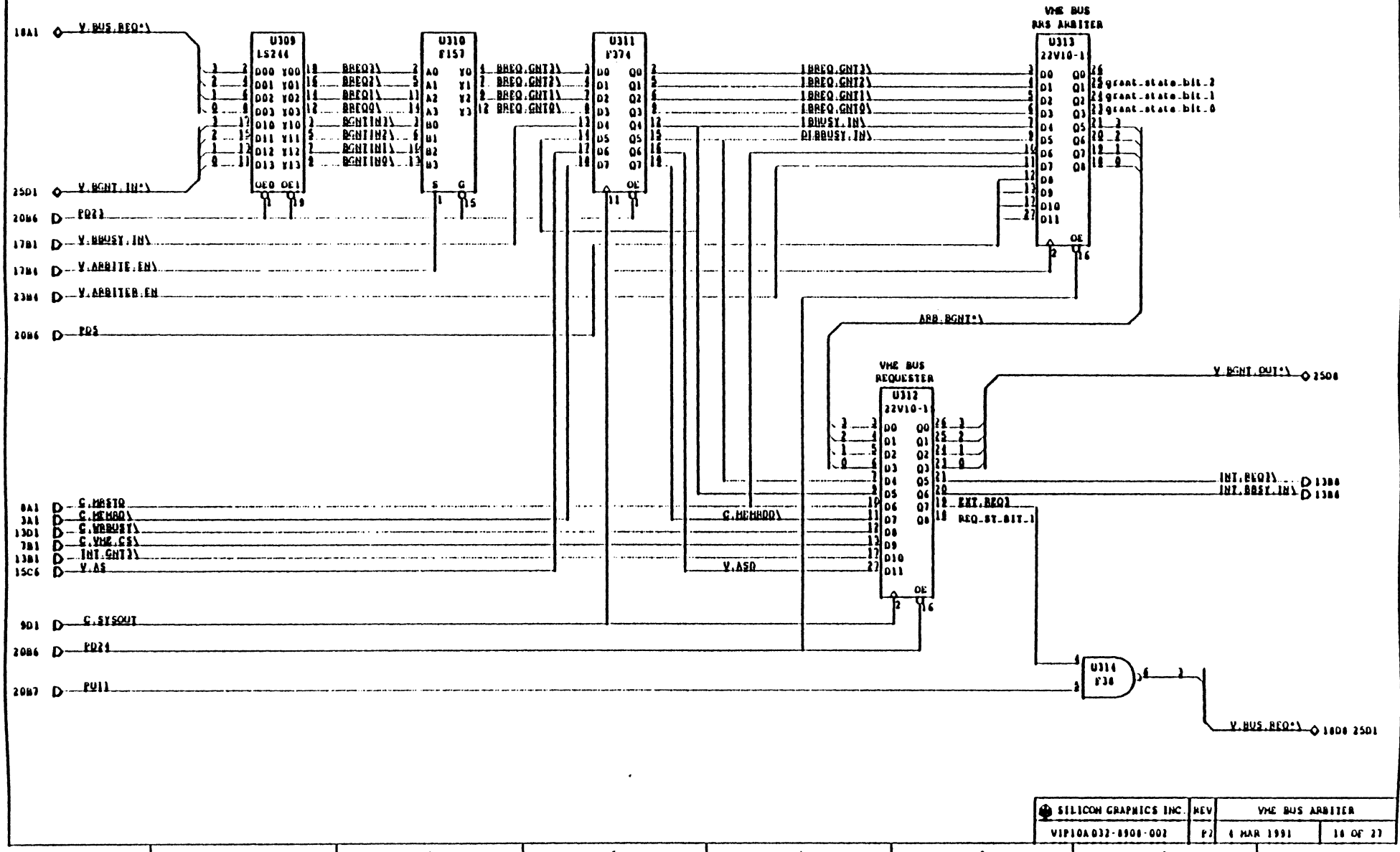
SILICON GRAPHICS INC.	REV	INTERRUPT CONTROLLER	
VIP10A032-8908-002	P2	4 MAR 1991	15 OF 27



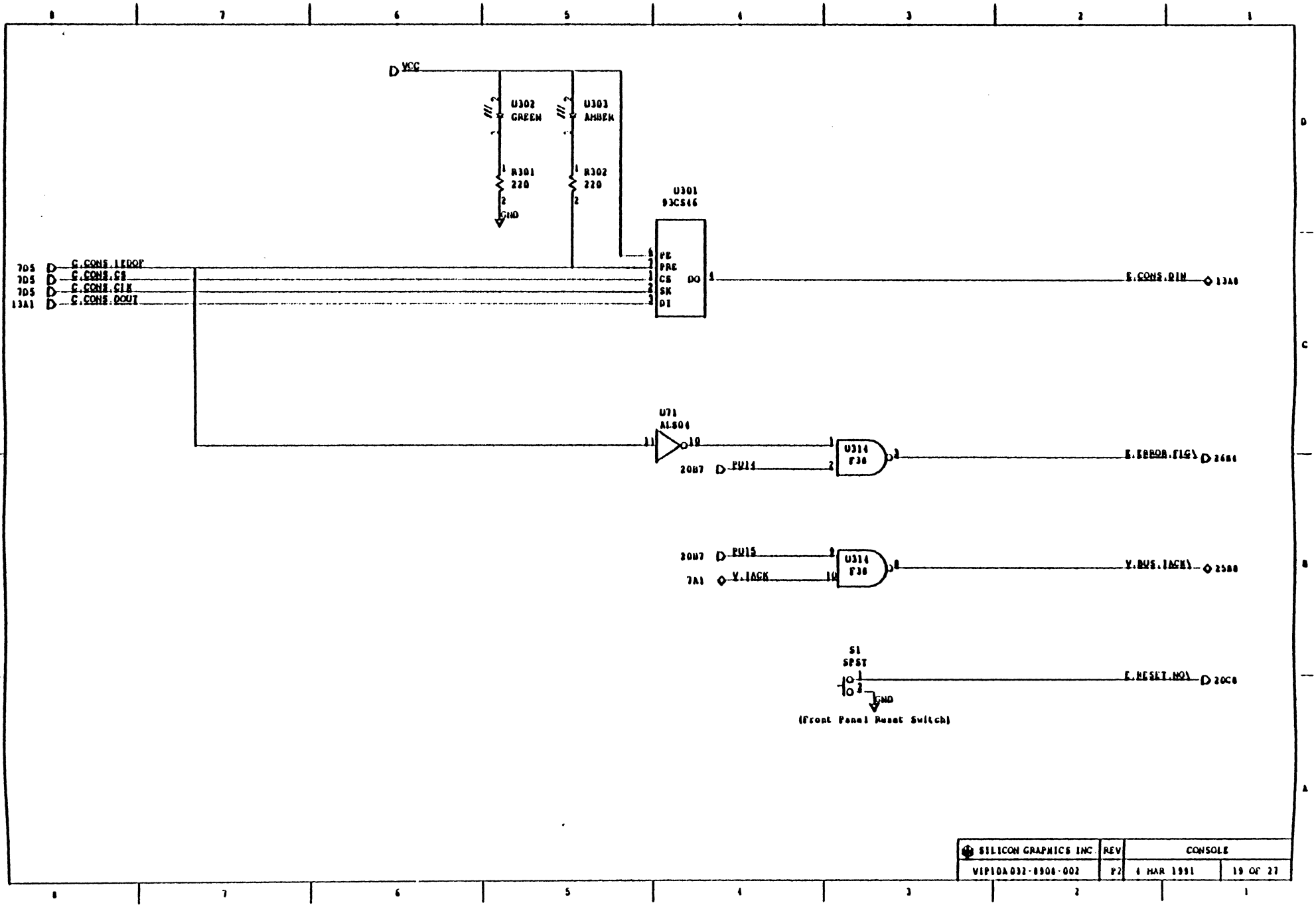
SILICON GRAPHICS INC.	REV	GRAPHICS I/F AND LOCATION MONITOR	
VIP10A032-8908-002	P2	6 MAR 1991	16 OF 27



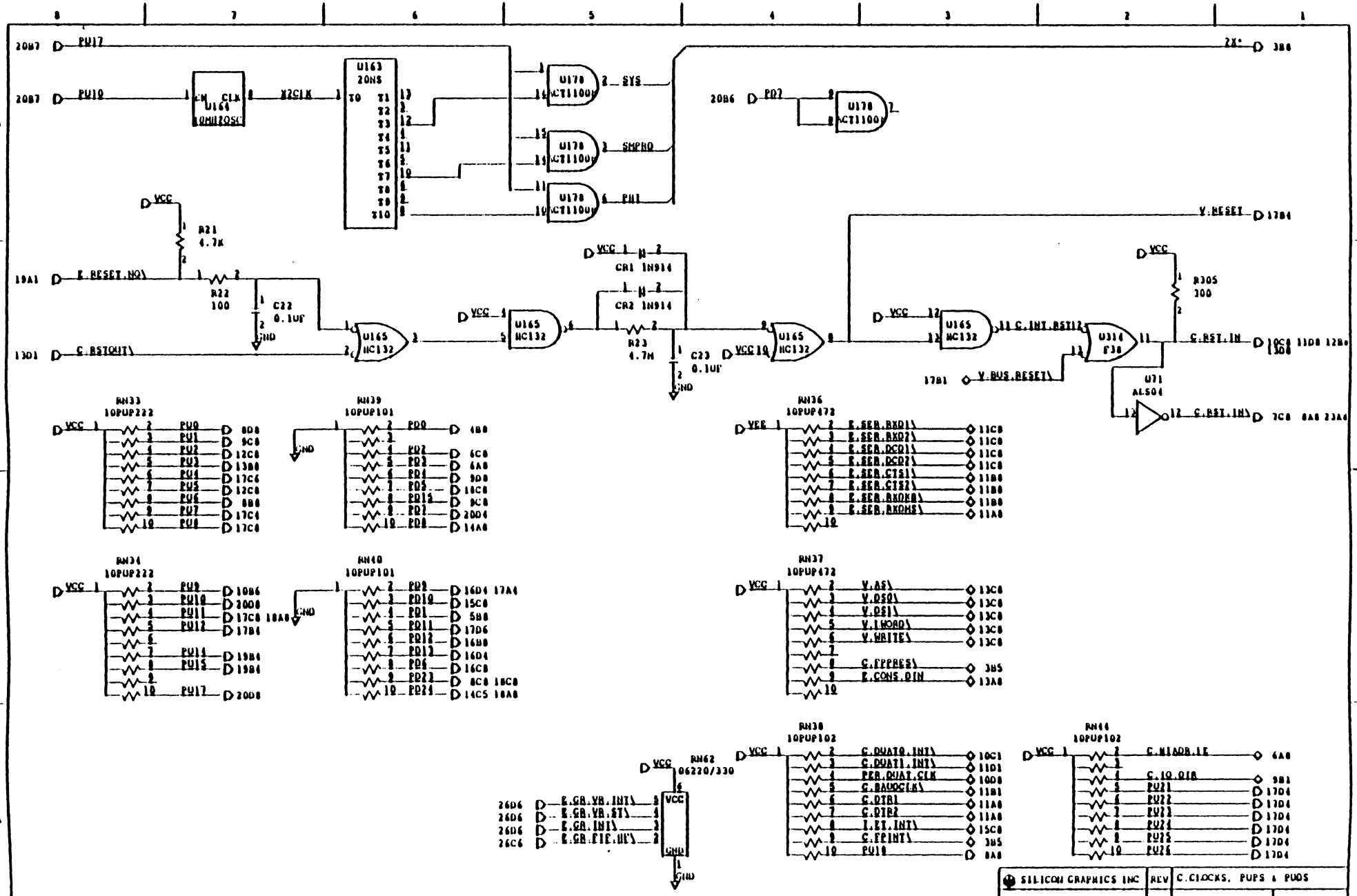
SILICON GRAPHICS INC.	REV	VME CNTLS, IACK & SYSCLOCK	
VIP10A032-8906-002	P2	6 MAR 1991	17 OF 27



SILICON GRAPHICS INC.	REV	VME BUS ARBITER	
VIP10A032-8908-002	P2	6 MAR 1991	16 OF 27



SILICON GRAPHICS INC.	REV	CONSOLE	
VIP10A032-0908-002	P2	6 MAR 1991	19 OF 27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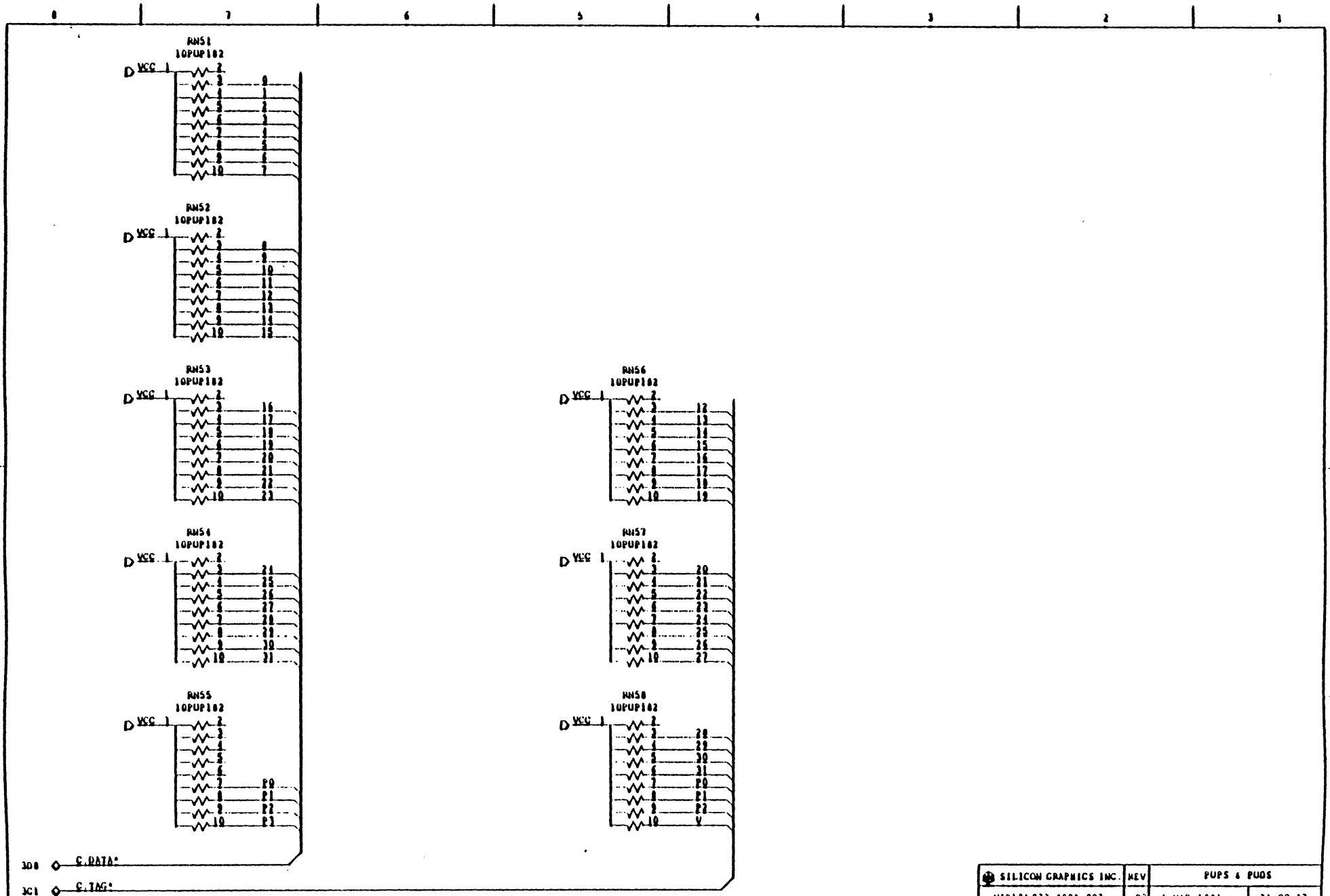
20NS
U164
10MHZOSC
U178
ACT1100
SYS
SMPRO
PU1
PU17
PU10
M2CLK
R21
4.7K
R22
100
C22
0.1UF
E.RESET.NO\
C.RSTOUT\
U165
HC132
CR1 1N914
CR2 1N914
R23
4.7M
C23
0.1UF
V.RESET
R305
300
C.INT.RST1\
U314
F38
C.RST.IN
U71
ALS04
C.RST.IN\
V.BUS.RESET\
RN33
10PUP222
RN39
10PUP101
RN36
10PUP472
RN34
10PUP222
RN40
10PUP101
RN37
10PUP472
RN62
06220/330
RN38
10PUP102
RN44
10PUP102
E.GR.VB.INT1\
E.GR.VB.ST1\
E.GR.INI\
E.GR.FIF.HF\
E.SER.RXD1\
E.SER.RXD2\
E.SER.DCD1\
E.SER.DCD2\
E.SER.CTS1\
E.SER.CTS2\
E.SER.RXDMA\
E.SER.RXDMB\
V.AS\
V.DS0\
V.DS1\
V.1WORD\
V.WRITE\
G.FPPRES\
E.CONS.DIN
G.DUAT0.INT1\
G.DUAT1.INT1\
PER.DUAT.CLK
G.BAUDG(6)
G.DTR1
G.DTR2
I.ET.INT1\
G.FPINT1\
G.M1ADR.IE
G.IO.OIB
SILICON GRAPHICS INC
C.CLOCKS, PUPS & PUDS
VIP10A032 8908 002
P2
4 MAR 1991
20 OF 27



SILICON GRAPHICS INC.	REV	PUPS & PUDS	
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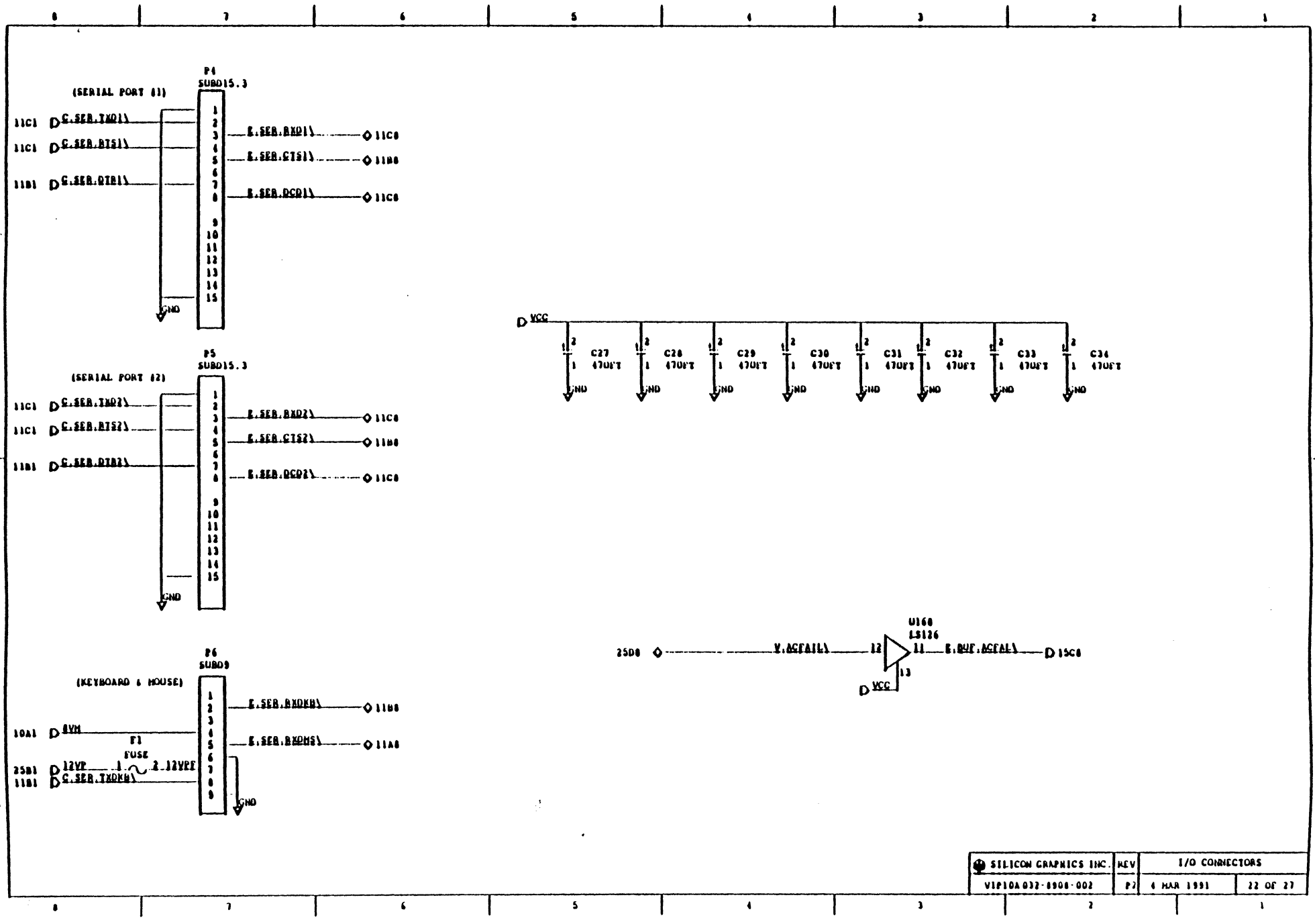
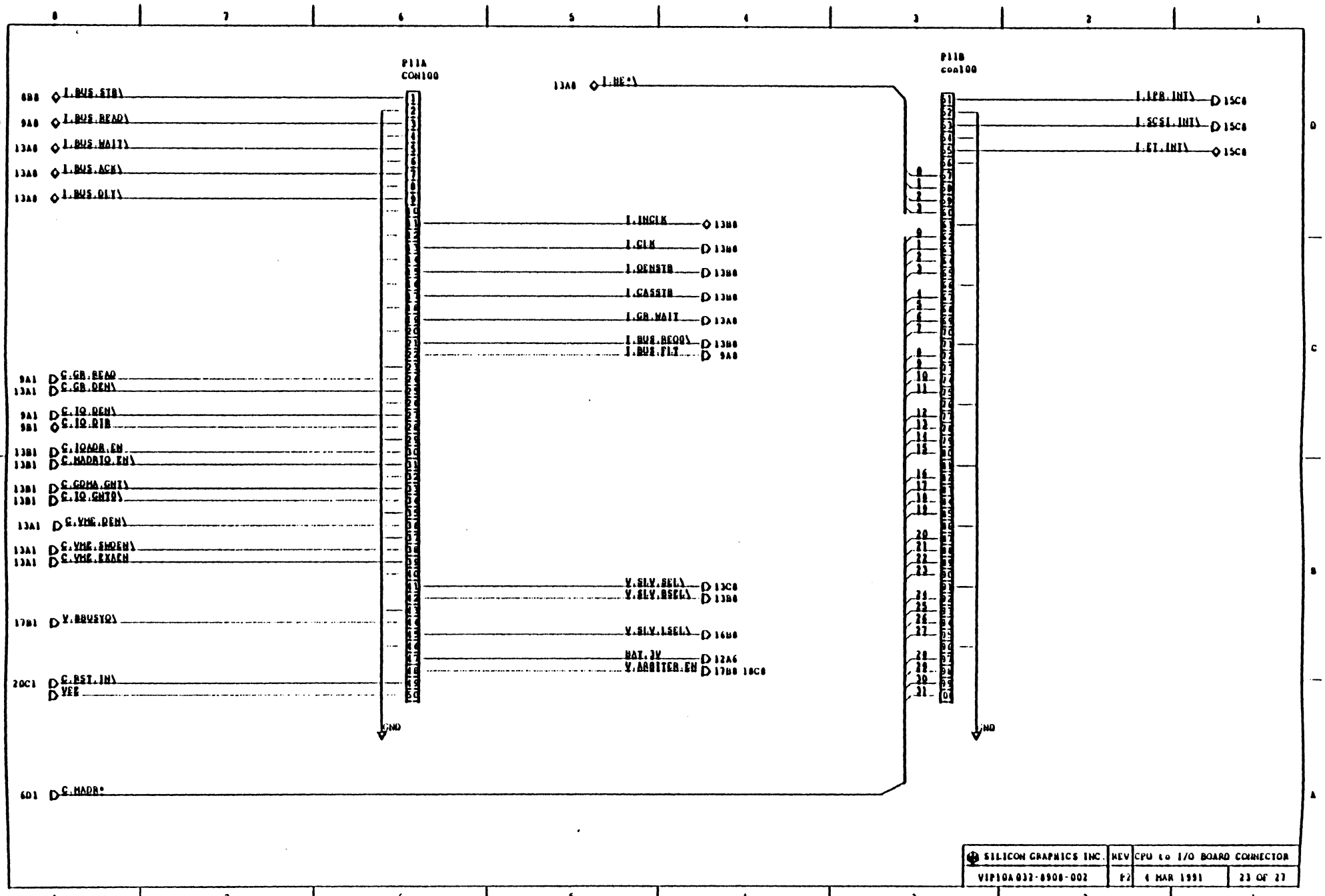
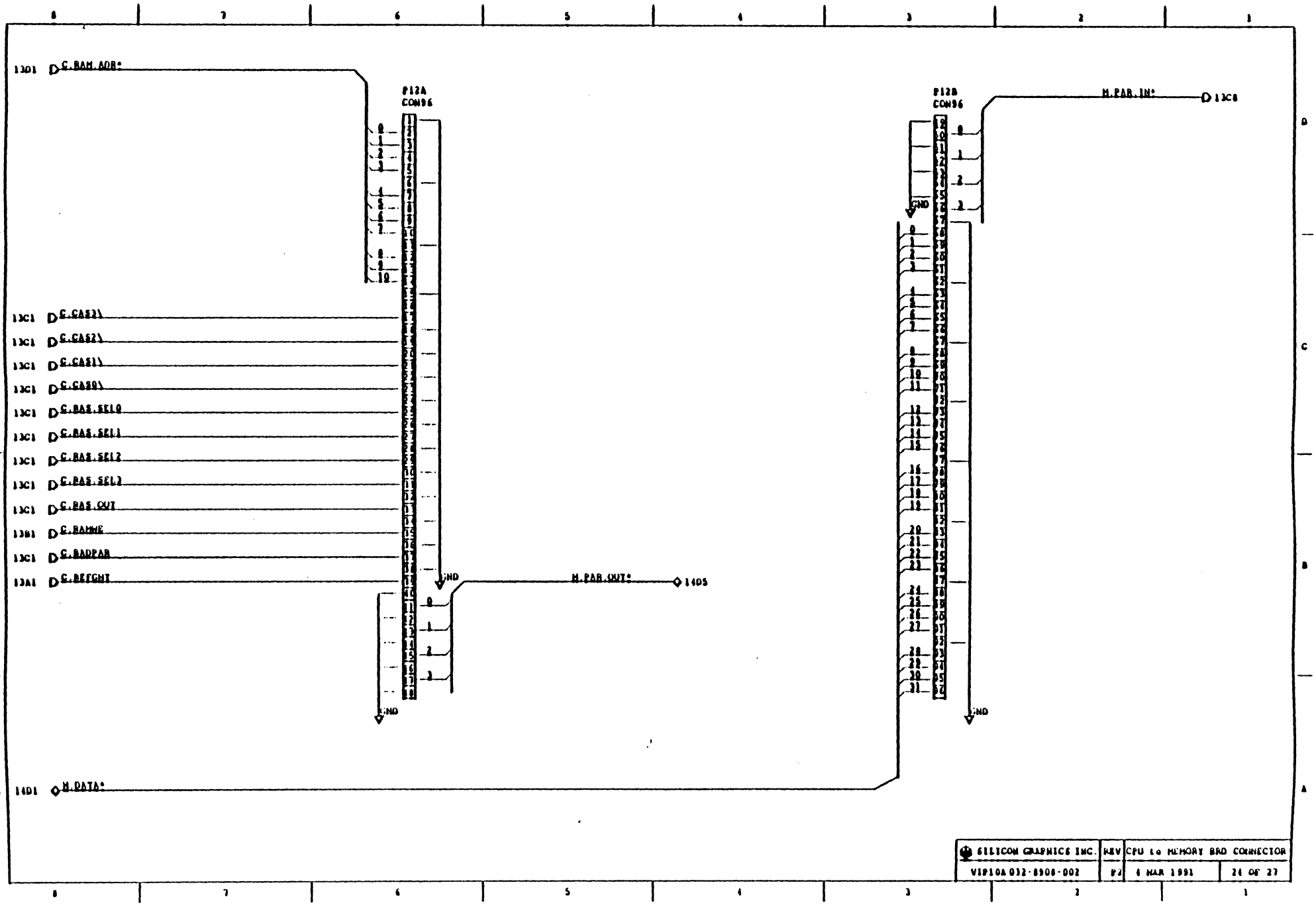


SILICON GRAPHICS INC.	REV	I/O CONNECTORS	
VIP10A032-8900-002	P2	4 MAR 1991	22 OF 27



SILICON GRAPHICS INC.	REV	CPU to I/O BOARD CONNECTOR	
VIP10A032-8908-002	P2	4 MAR 1991	23 OF 27


P12A
CON96
P12B
CON96
1301 C.RAM.ADR*
1301 C.CAS3\
1301 C.CAS2\
1301 C.CAS1\
1301 C.CAS0\
1301 C.RAS.SEL0
1301 C.RAS.SEL1
1301 C.RAS.SEL2
1301 C.RAS.SEL3
1301 C.RAS.OUT
1301 C.RAMWE
1301 C.RADPAR
1301 C.REFCNT
M.PAR.OUT* 1405
M.PAR.IN* 1308
1401 M.DATA*
GND
SILICON GRAPHICS INC.
VIP10A032-8908-002
REV P2
CPU to MEMORY BRD CONNECTOR
6 MAR 1991
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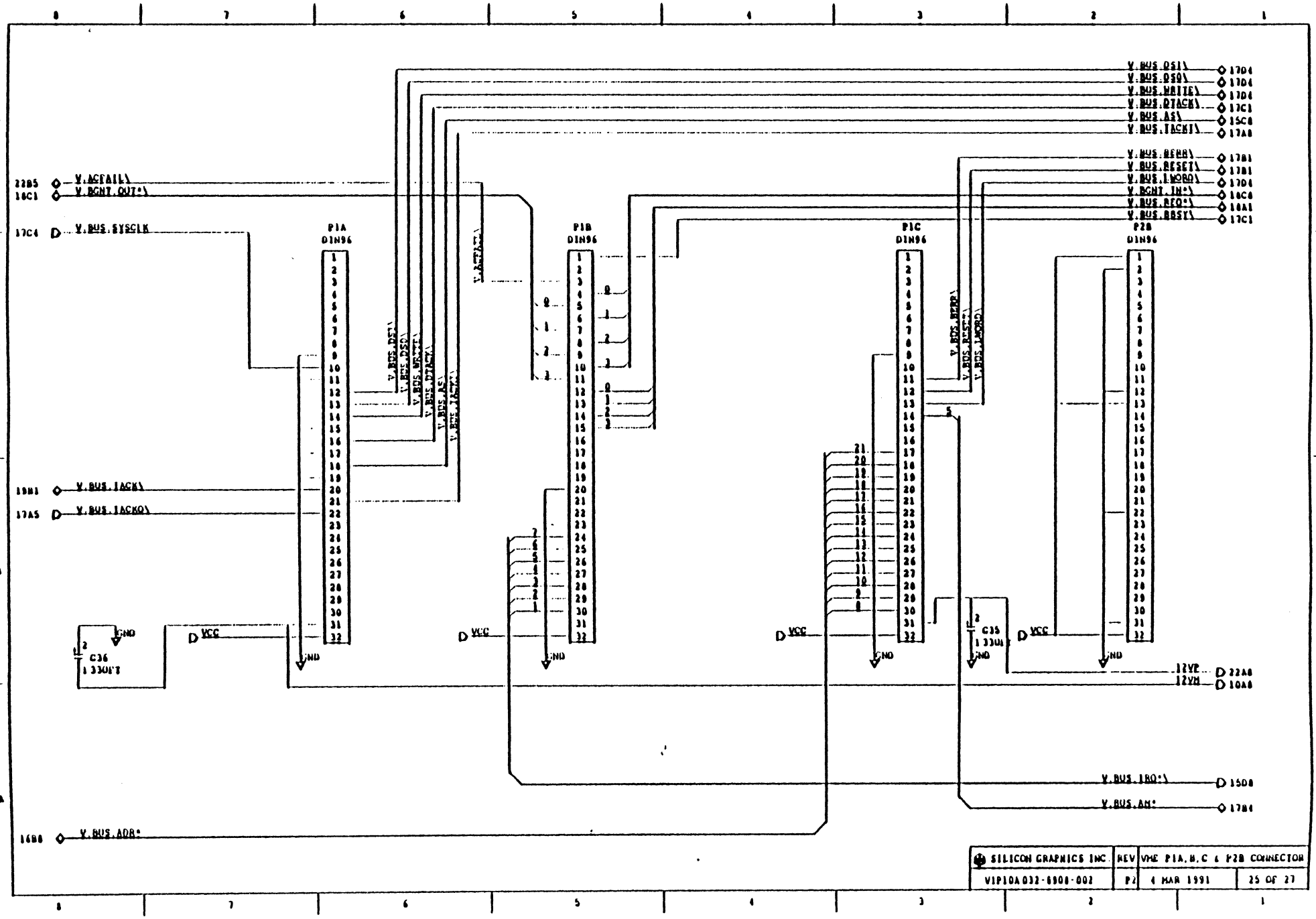
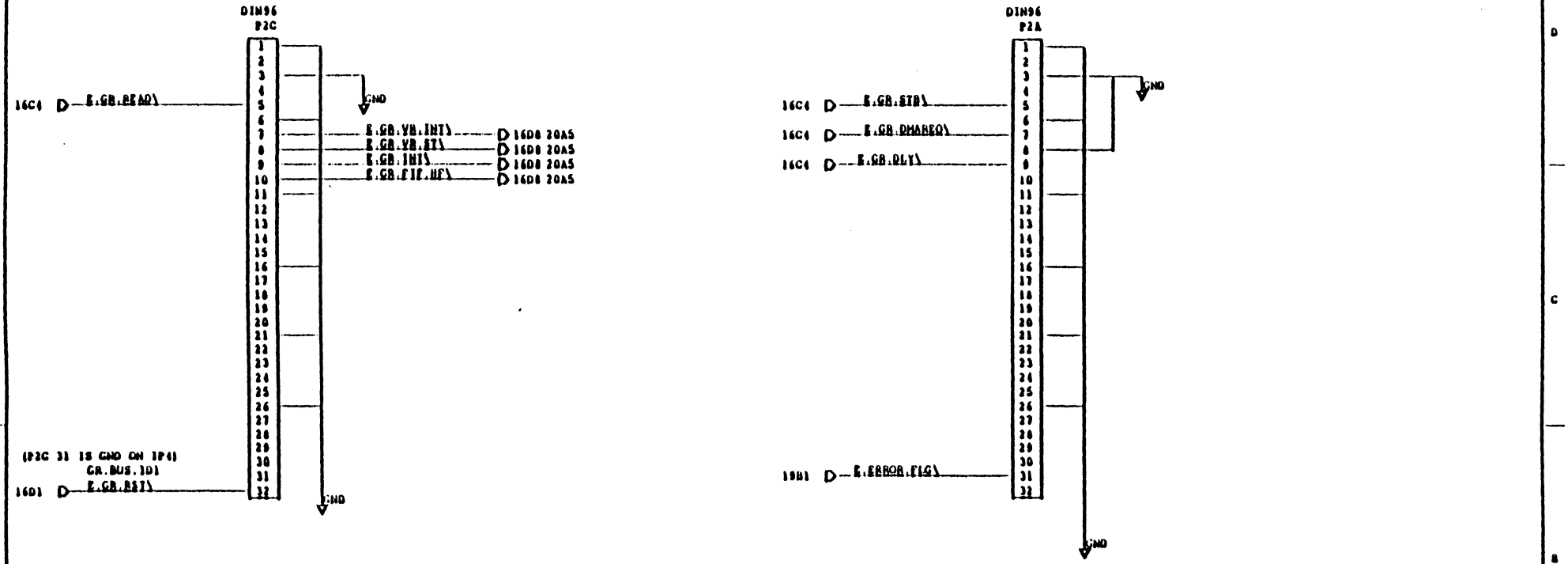
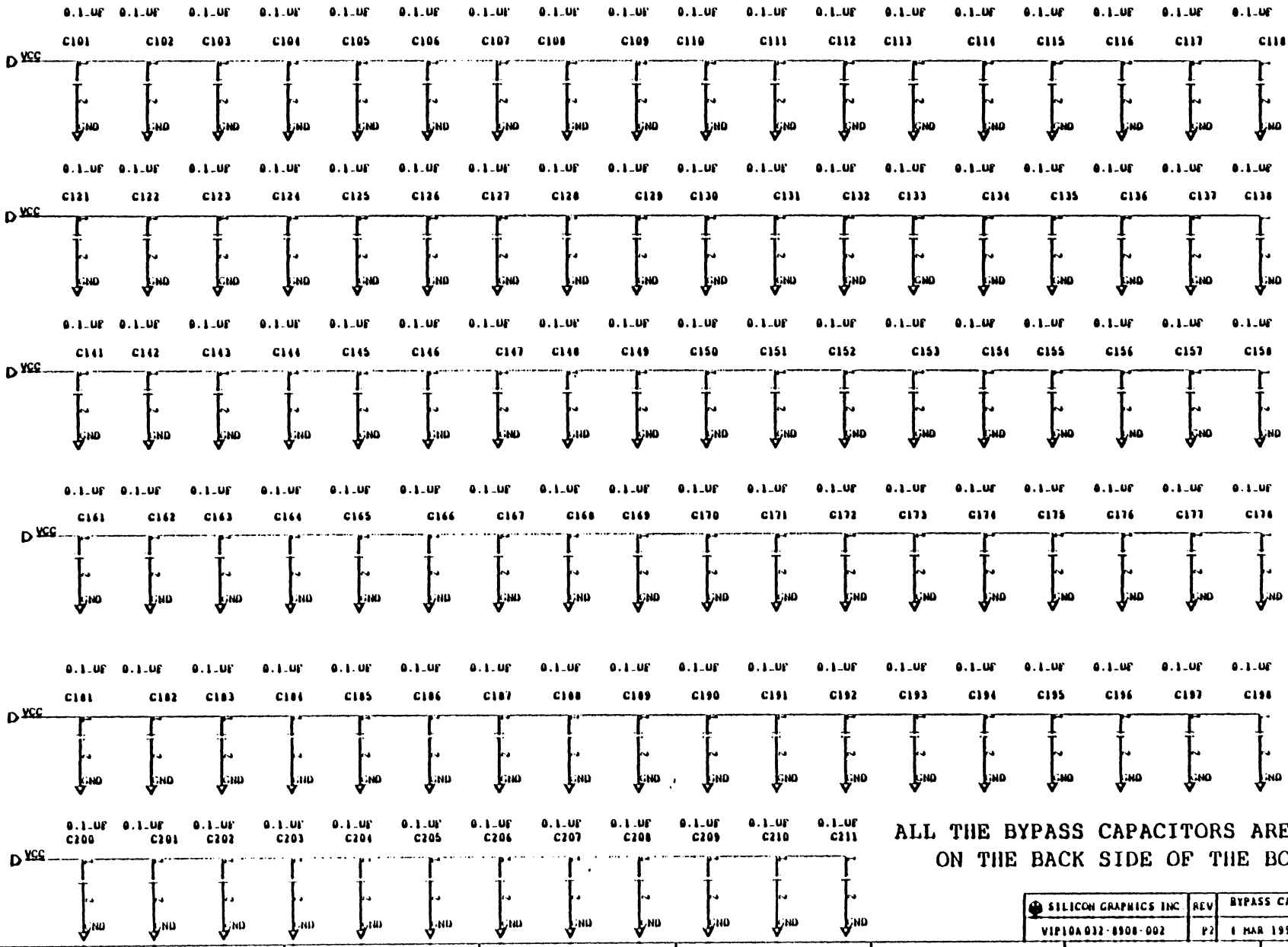


SILICON GRAPHICS INC	REV	VME P1A,B,C & P2B CONNECTOR
VIP10A032-6900-002	P2	4 MAR 1991	25 OF 27



SILICON GRAPHICS INC.	REV	VME P2A,C CONNECTOR	
VIP10A032-8908-002	P2	4 MAR 1991	26 OF 27



ALL THE BYPASS CAPACITORS ARE PLACED ON THE BACK SIDE OF THE BOARD

SILICON GRAPHICS INC	REV	BYPASS CAPACITORS	
VIP10A032-0508-002	P2	6 MAR 1991	27 OF 27

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

APPLICATIONS				SILICON GRAPHICS INC.				
		drw		VIP10_IO				
		chk						
		lea.						
030-8029	--------			NOM.	DRAWING NUMBER	REV	DATE	SHEET
NEXT ASSEMBLY	USED ON	APPROVALS	DATE	VIP10	030-8909-002	P2	6 MAR 1991	1 OF 20

PAGE # DESCRIPTION

03 CPU ADDRESS BUFFERS
04 IOC GATE ARRAY AND MAP
05 ENTERNET, SCSI AND PRINTER
06 AUDIO I/O
07 GRAPHICS I/F AND I/O CLOCKS
08 GRAPHICS BUFFERS
09 MEMORY DATA BUFFERS
10 VME DATAPATH
11 VME SLAVE ADDRESS DECODING
12 VME BUS TIMER
13 PUPS & PUOS, BATTERY, OSCI
14 BUS PUPS
15 PERIPHERAL CONNECTORS
16 CPU to I/O BOARD CONNECTOR
17 I/O to MEMORY BOARD CONNECTOR
18 VME P1A,B,C AND P2B CONNECTORS
19 VME P2A,C (GRAPHICS) CONNECTORS
20 BYPASS CAPACITORS

SILICON GRAPHICS INC.	REV	TABLE OF CONTENTS	
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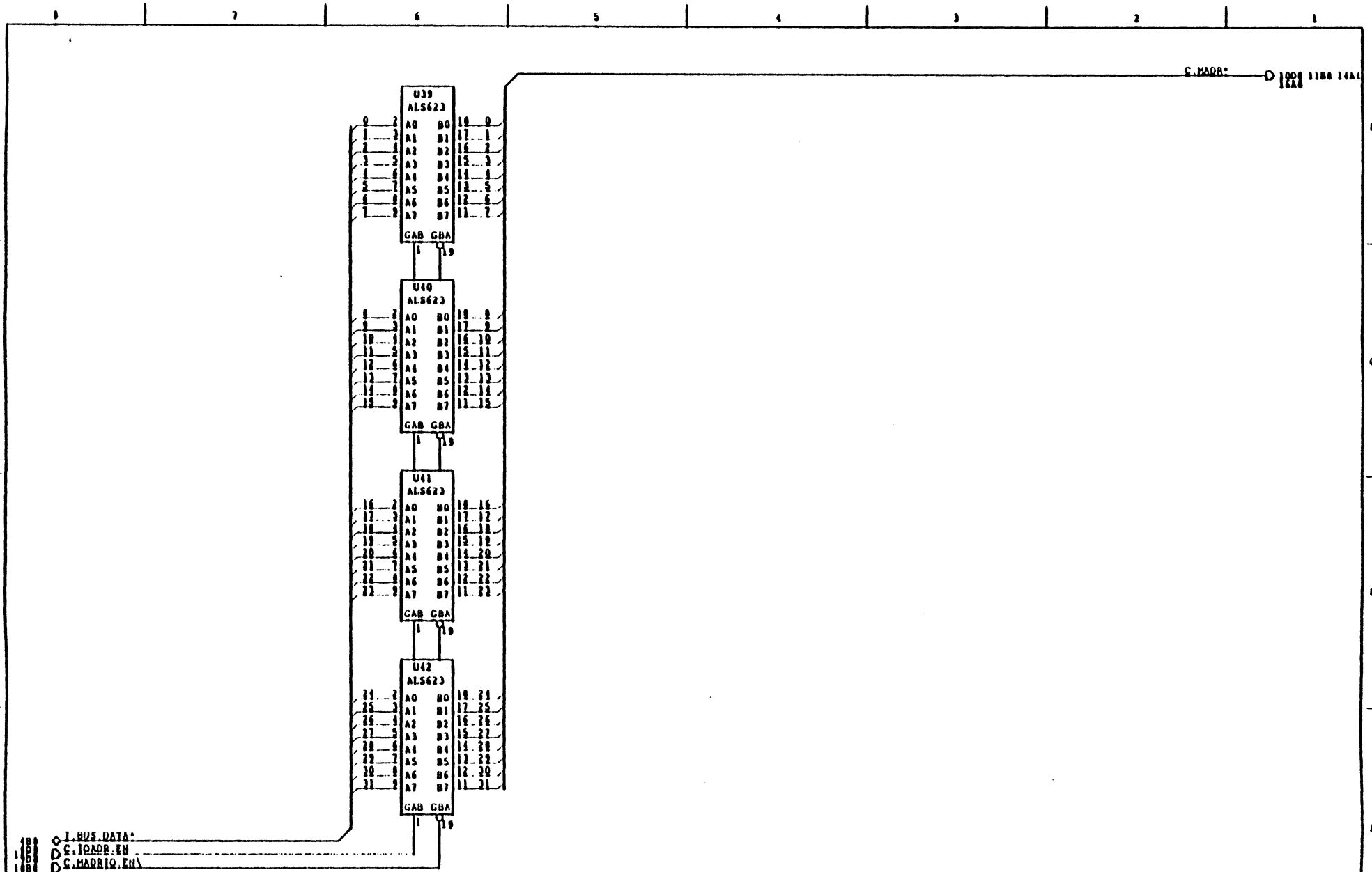

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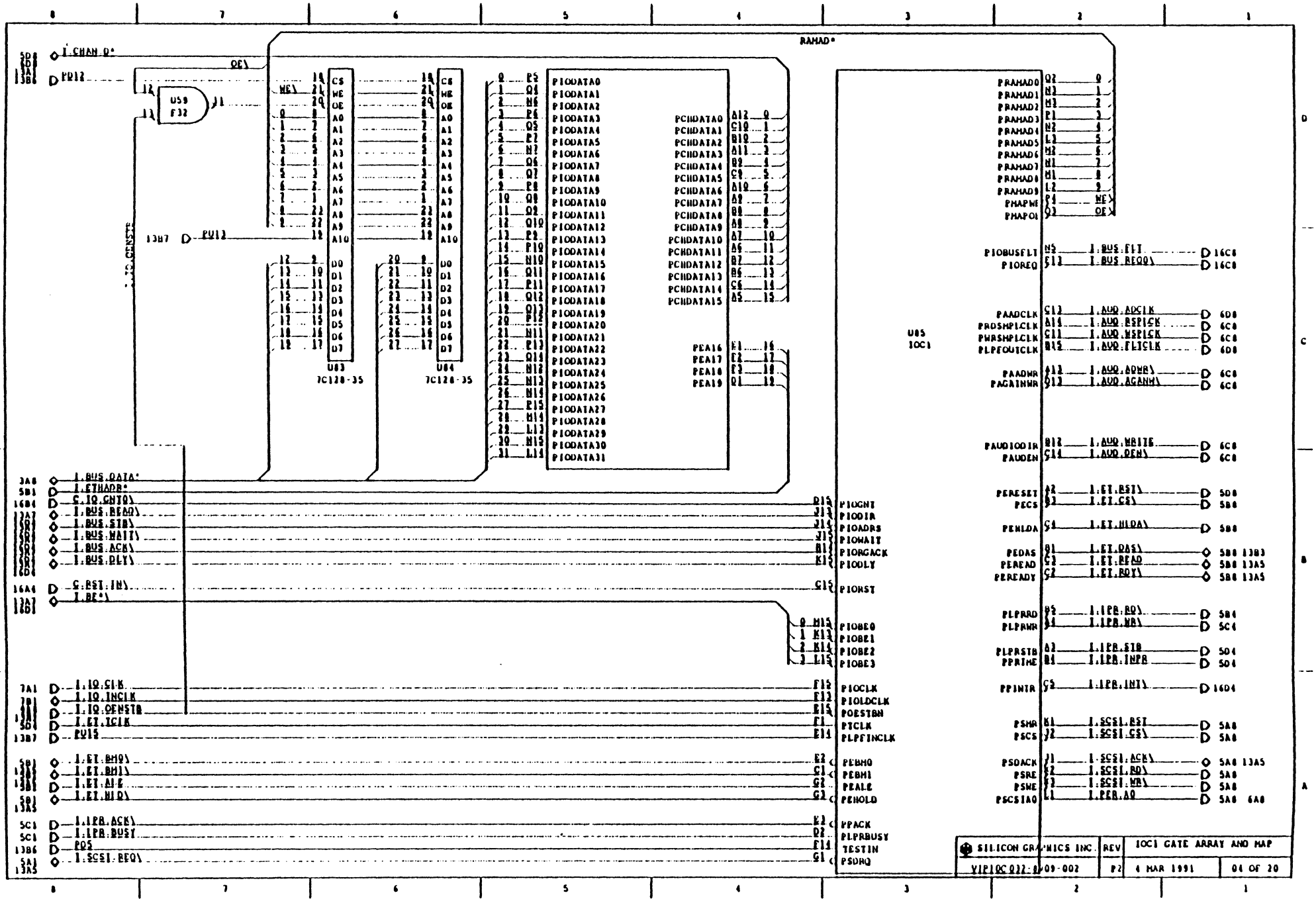
VIP10C032-0909-002	P2	4 MAR 1991	03 OF 20


RAMAD*
I.CHAN D*
OE\
PU12
U59
F32
U83
7C128-35
U84
7C128-35
I.IO.OENSTB
PU13
PIODATA0
PIODATA1
PIODATA2
PIODATA3
PIODATA4
PIODATA5
PIODATA6
PIODATA7
PIODATA8
PIODATA9
PIODATA10
PIODATA11
PIODATA12
PIODATA13
PIODATA14
PIODATA15
PIODATA16
PIODATA17
PIODATA18
PIODATA19
PIODATA20
PIODATA21
PIODATA22
PIODATA23
PIODATA24
PIODATA25
PIODATA26
PIODATA27
PIODATA28
PIODATA29
PIODATA30
PIODATA31
PCHDATA0
PCHDATA1
PCHDATA2
PCHDATA3
PCHDATA4
PCHDATA5
PCHDATA6
PCHDATA7
PCHDATA8
PCHDATA9
PCHDATA10
PCHDATA11
PCHDATA12
PCHDATA13
PCHDATA14
PCHDATA15
PEA16
PEA17
PEA18
PEA19
U85
IOC1
PRAMAD0
PRAMAD1
PRAMAD2
PRAMAD3
PRAMAD4
PRAMAD5
PRAMAD6
PRAMAD7
PRAMAD8
PRAMAD9
PMAPWE
PMAPOE
PIOBUSFLT
PIOREQ
PAADCLK
PROSMPLCLK
PWRSMPLCLK
PLPEOUTCLK
PAADWR
PAGAINWR
PAUDIODIR
PAUDEN
PERESET
PECS
PENLDA
PEDAS
PEREAD
PEREADY
PLPPRD
PLPPWR
PLPPSTB
PPPRIME
PPINTR
PSMR
PSCS
PSDACK
PSRE
PSWE
PSCSIAO
I.BUS.DATA*
I.ETHADR*
C.IO.CNTO\
I.BUS.READ\
I.BUS.STB\
I.BUS.WAIT\
I.BUS.ACK\
I.BUS.DLY\
C.RST.IN\
I.BE*\
I.IO.CLK
I.IO.INCLK
I.IO.OENSTB
I.ET.TCLK
PU15
I.ET.BM0\
I.ET.BM1\
I.ET.AI.E
I.ET.NI.D\
I.IPB.ACK\
I.IPB.BUSY
PD5
I.SCSI.REQ\
PIOGNT
PIODIR
PIOADRS
PIOWAIT
PIORGACK
PIODLY
PIORST
PIOBE0
PIOBE1
PIOBE2
PIOBE3
PIOCLK
PIOLDCLK
POESTBN
PTCLK
PLPFINCLK
PEBM0
PEBM1
PEALE
PEHOLD
PPACK
PLPRBUSY
TESTIN
PSDRQ
I.BUS.FLT
I.BUS.REQ\
I.AUD.ADCLK
I.AUD.RSPICK
I.AUD.WSPICK
I.AUD.FLTCLK
I.AUD.ADWR\
I.AUD.AGANW\
I.AUD.WRITE
I.AUD.DEN\
I.ET.RST\
I.ET.CS\
I.ET.NLDA\
I.ET.DAS\
I.ET.READ
I.ET.RDY\
I.IPB.RD\
I.IPB.WR\
I.IPB.STB
I.IPB.INPR
I.IPB.INT\
I.SCSI.RST
I.SCSI.CS\
I.SCSI.ACK\
I.SCSI.RD\
I.SCSI.WR\
I.PER.AO
SILICON GRAPHICS INC.
REV
IOC1 GATE ARRAY AND MAP
VIP10C012-0009-002
P2
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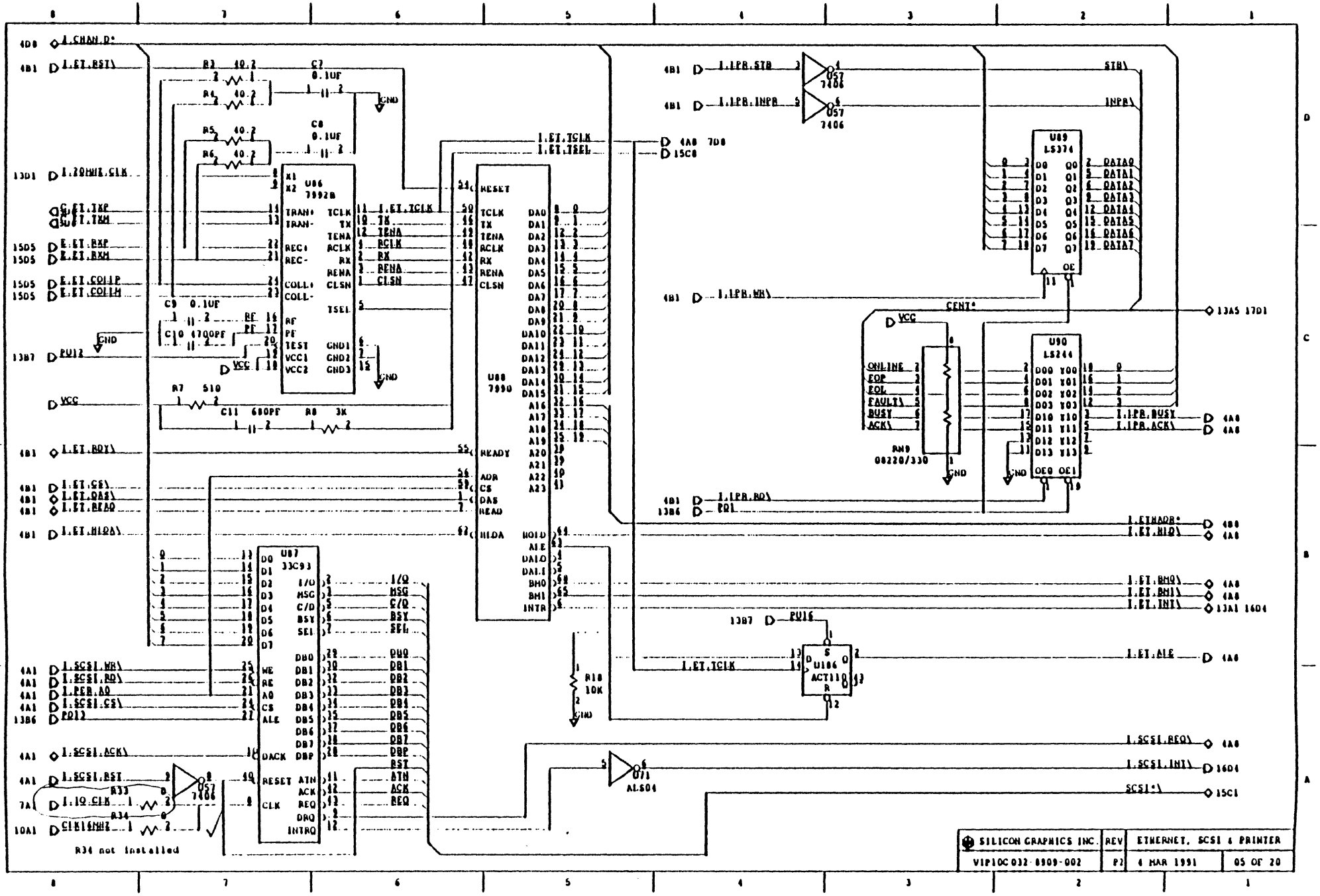
I.ET.RST\
I.20MHZ.CLK
I.ET.TXP
I.ET.TXM
I.ET.RXP
I.ET.RXM
I.ET.COLLP
I.ET.COLLM
PU12
VCC
I.ET.RDY\
I.ET.CS\
I.ET.DAS\
I.ET.READ
I.ET.HLDA\
I.SCSI.WR\
I.SCSI.RD\
I.PER.A0
I.SCSI.CS\
PD12
I.SCSI.ACK\
I.SCSI.RST
I.10 CLK
CLK10MHZ
R34 not installed
R3 40.2
R4 40.2
R5 40.2
R6 40.2
C7 0.1UF
C8 0.1UF
C9 0.1UF
C10 4700PF
R7 510
C11 680PF
R8 3K
U86 7992B
TRAN+
TRAN-
REC+
REC-
COLL+
COLL-
TSEL
RF
PF
TEST
VCC1
VCC2
TCLK
TX
TENA
ACLK
RX
RENA
CLSN
GND1
GND2
GND3
U88 7990
RESET
TCLK
TX
TENA
ACLK
RX
RENA
CLSN
TSEL
RF
PF
READY
ADR
CS
DAS
READ
HLDA
HOLD
ALE
DALO
DALI
BHO
BHI
INTR
DA0
DA1
DA2
DA3
DA4
DA5
DA6
DA7
DA8
DA9
DA10
DA11
DA12
DA13
DA14
DA15
A16
A17
A18
A19
A20
A21
A22
A23
U87 33C93
DO
D1
D2
D3
D4
D5
D6
D7
WE
RE
A0
CS
ALE
DACK
RESET
CLK
I/O
MSG
C/D
BSY
SEL
ATN
ACK
REQ
DRQ
INTRQ
DB0
DB1
DB2
DB3
DB4
DB5
DB6
DB7
DBP
R33
R34
U57 7406
U71 ALS04
I.ET.TCLK
I.ET.TSEL
4A8 7D8
15C8
I.IPB.STB
I.IPB.INPB
U57 7406
STB\
INPB\
U89 LS374
DATA0
DATA1
DATA2
DATA3
DATA4
DATA5
DATA6
DATA7
I.IPB.WR\
CENT*
13A5 17D1
VCC
ONLINE
EOP
EOL
FAULT\
BUSY
ACK\
RN9 08220/330
U90 LS244
I.IPB.BUSY
I.IPB.ACK\
4A8
I.IPB.BQ\
13B6 PQ1
I.ETHADR*
I.ET.HLD\
I.ET.BHO\
I.ET.BH1\
I.ET.INT\
13A1 16D4
13B7 PU16
U186 ACT11B
I.ET.ALE
R18 10K
I.SCSI.REQ\
I.SCSI.INT\
16D4
SCSI*\
15C1
SILICON GRAPHICS INC.
VIP10C032-0909-002
REV P2
ETHERNET, SCSI & PRINTER
4 MAR 1991
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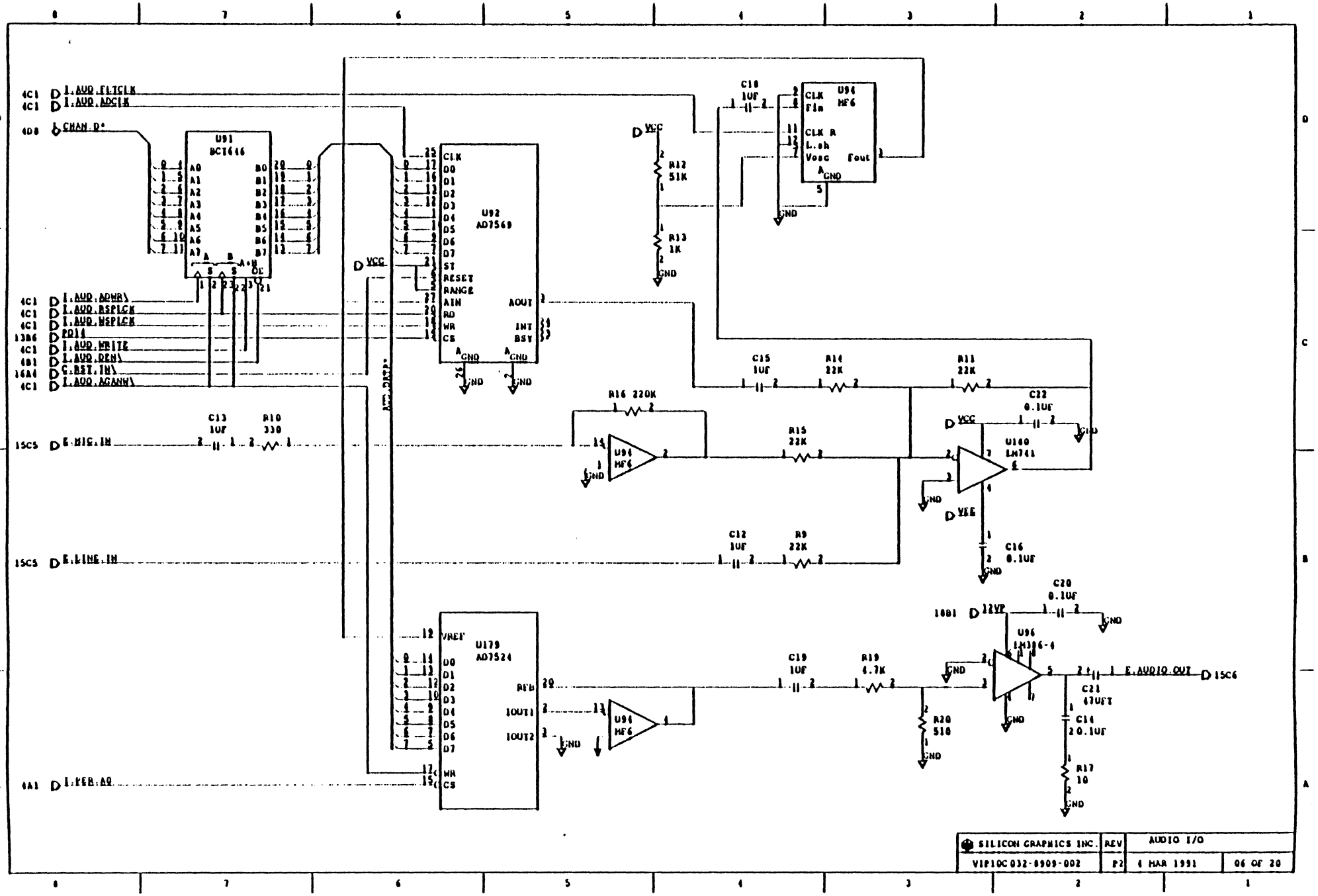
I.AUD.FLICLK
I.AUD.ADCLK
CHAN.D*
U91
BCT646
U92
AD7569
I.AUD.ADWR\
I.AUD.BSPLCK
I.AUD.MSPLCK
P014
I.AUD.WRITE
I.AUD.DEN\
G.RST.IN\
I.AUD.AGANW\
E.MIC.IN
E.LINE.IN
I.FEB.A0
U179
AD7524
U94
HF6
U96
LM386-4
U160
LM741
R10 330
R11 22K
R12 51K
R13 1K
R14 22K
R15 22K
R16 220K
R17 10
R19 4.7K
R20 510
C10 1UF
C12 1UF
C13 1UF
C15 1UF
C16 0.1UF
C19 1UF
C20 0.1UF
C21 47UFT
C22 0.1UF
E.AUDIO.OUT
VCC
VEE
12VP
GND
SILICON GRAPHICS INC.
VIP10C032-8909-002
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P2
AUDIO I/O
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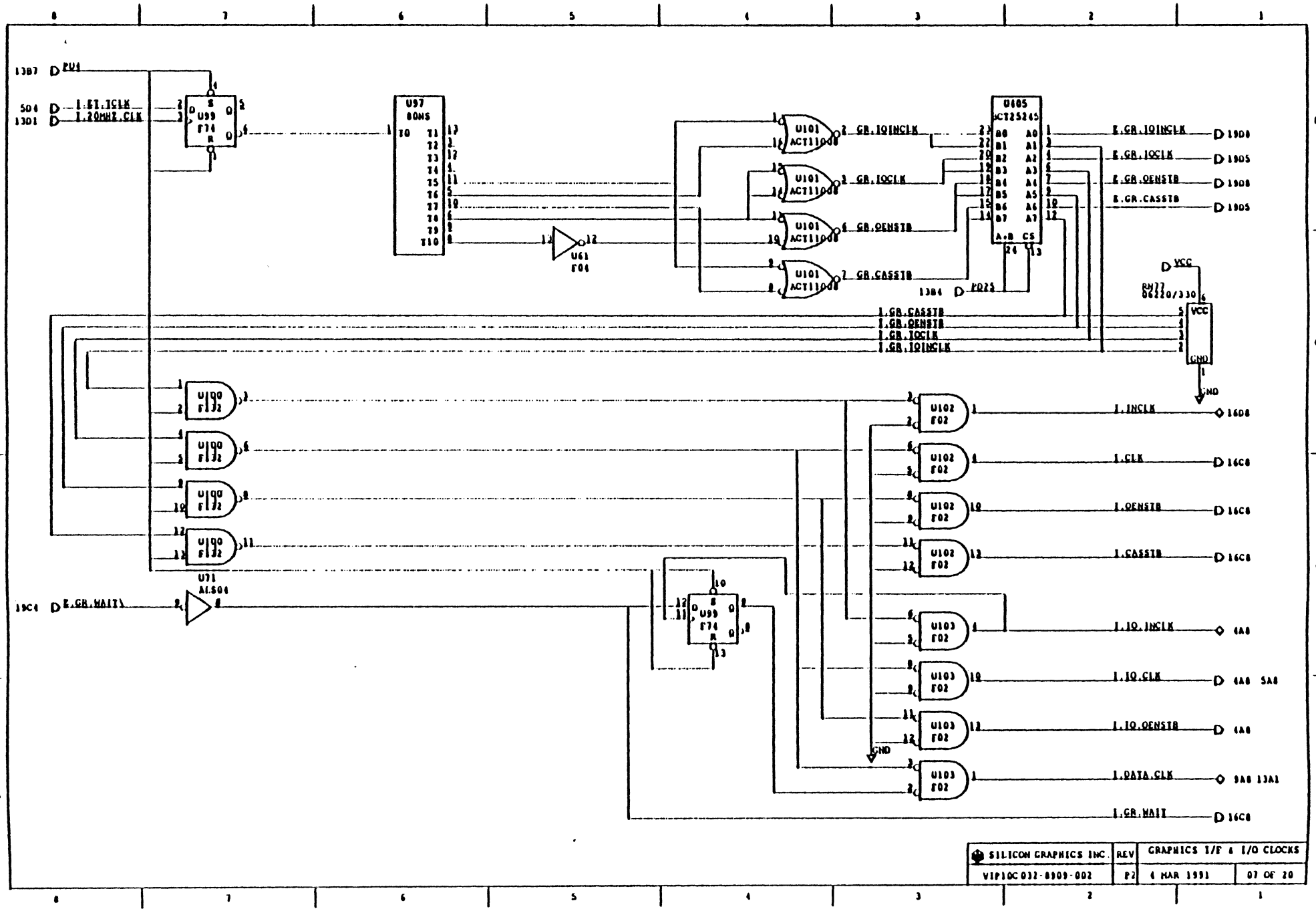
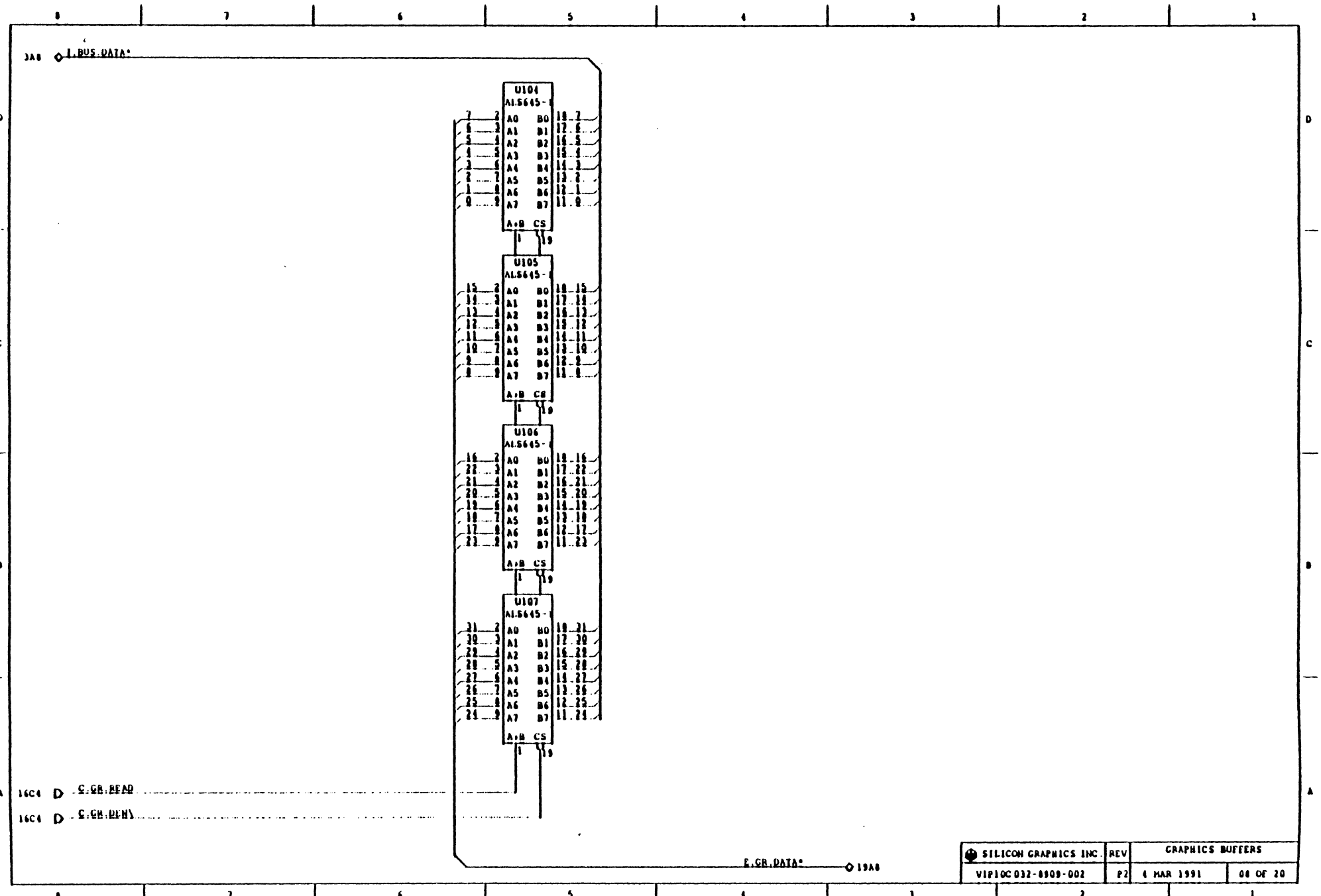


SILICON GRAPHICS INC.	REV	GRAPHICS I/F & I/O CLOCKS	
VIP10C032-8909-002	P2	4 MAR 1991	07 OF 20


3A8
L.BUS.DATA*
U104
ALS645-1
U105
ALS645-1
U106
ALS645-1
U107
ALS645-1
A0 A1 A2 A3 A4 A5 A6 A7
B0 B1 B2 B3 B4 B5 B6 B7
A+B CS
16C4 D C.GR.READ
16C4 D C.GR.DEN\
P.GR.DATA*
19A8
SILICON GRAPHICS INC.
VIP10C032-8909-002
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GRAPHICS BUFFERS
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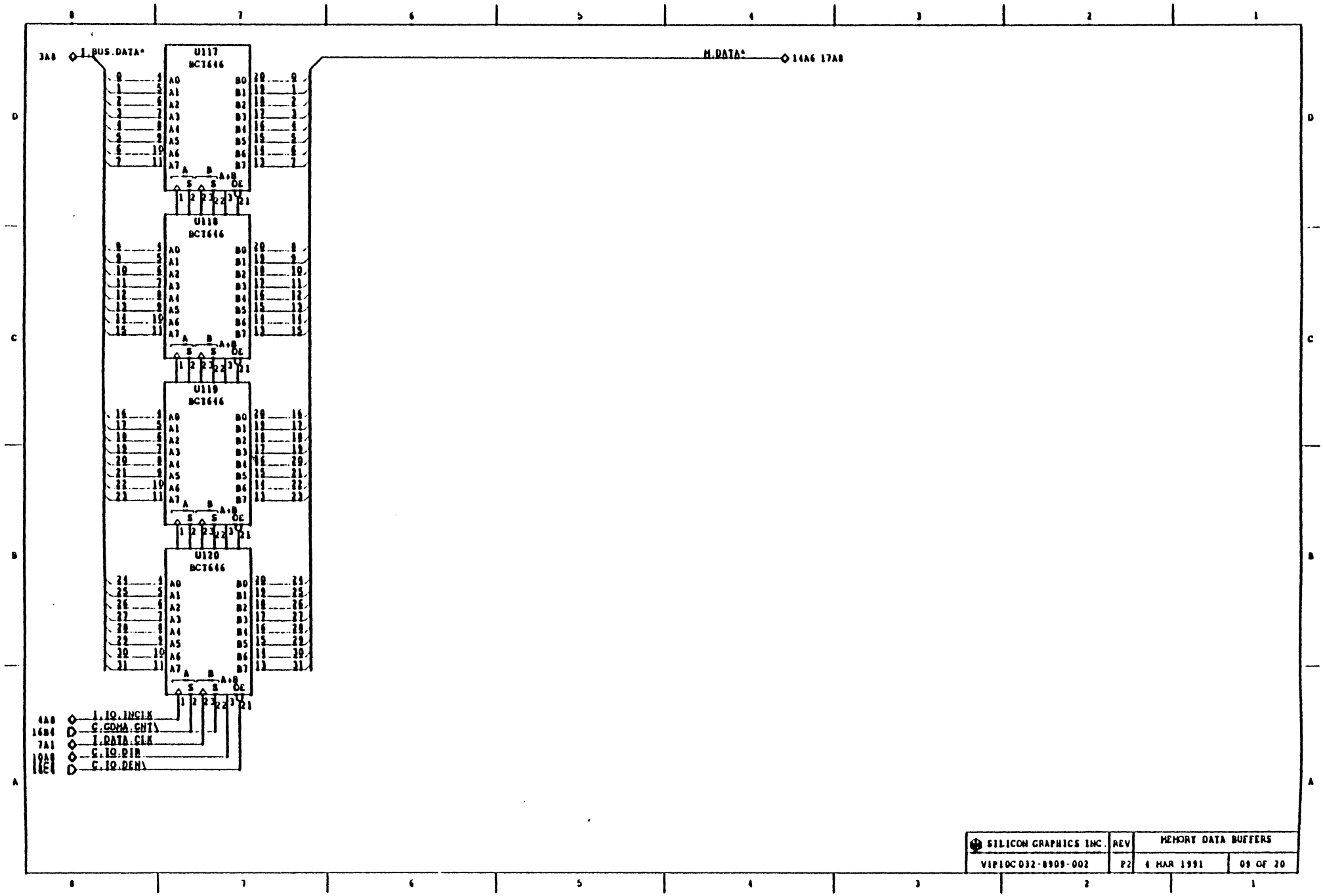

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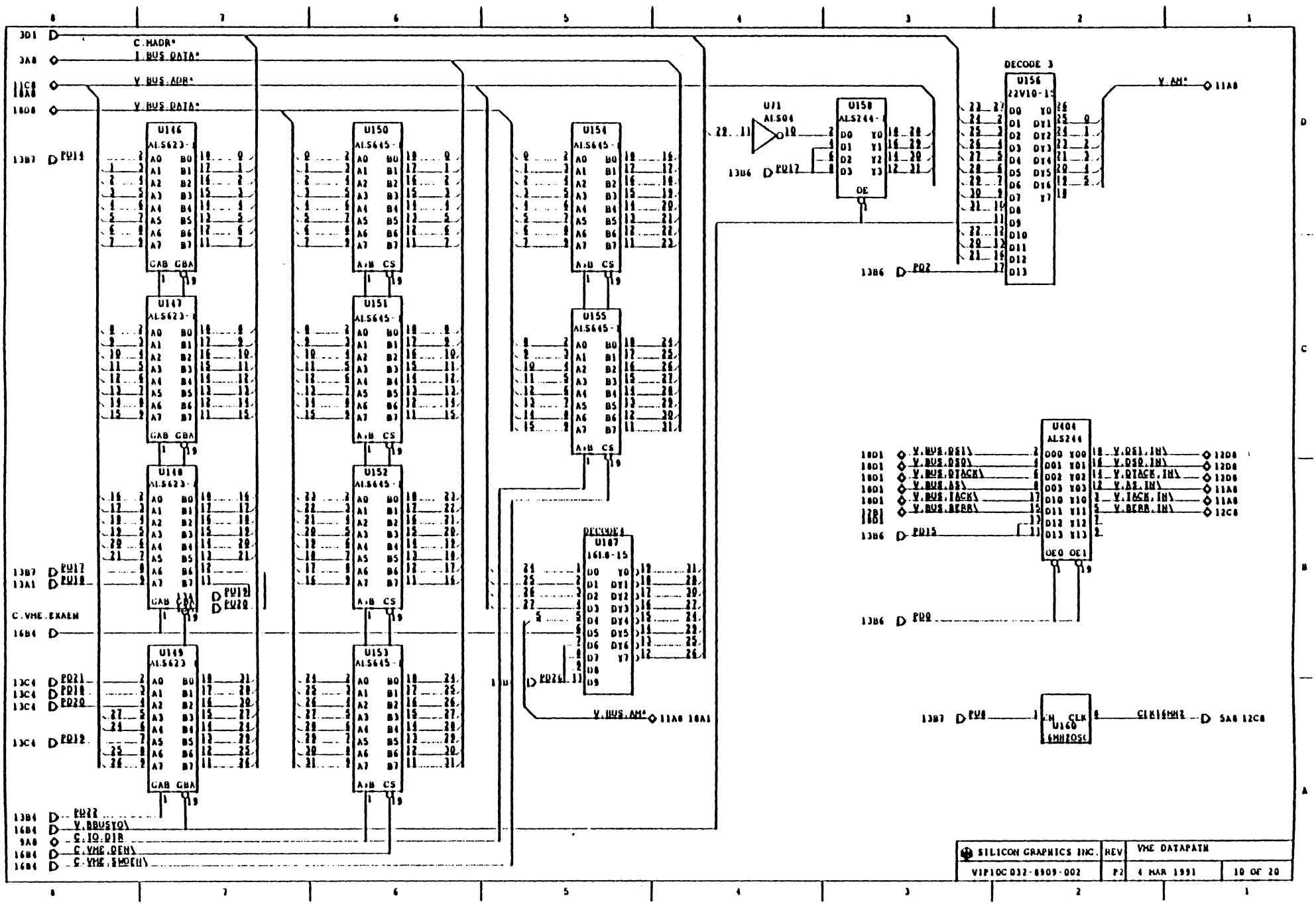
C.MADR*
I.BUS.DATA*
V.BUS.ADR*
V.BUS.DATA*
U146
U147
U148
U149
U150
U151
U152
U153
U154
U155
U156
U158
U171
U187
U404
U160
DECODE 3
DECODE4
V.AM*
V.BUS.AM*
V.VME.EXAEN
C.VME.DEN\
C.VME.SYSEN\
V.BBUSIO\
C.IO.DIR
V.DS1.IN\
V.DS0.IN\
V.DTACK.IN\
V.AS.IN\
V.IACK.IN\
V.BERR.IN\
CLK16MHZ
SILICON GRAPHICS INC.
VIP10C032-8909-002
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P2
VME DATAPATH
4 MAR 1991
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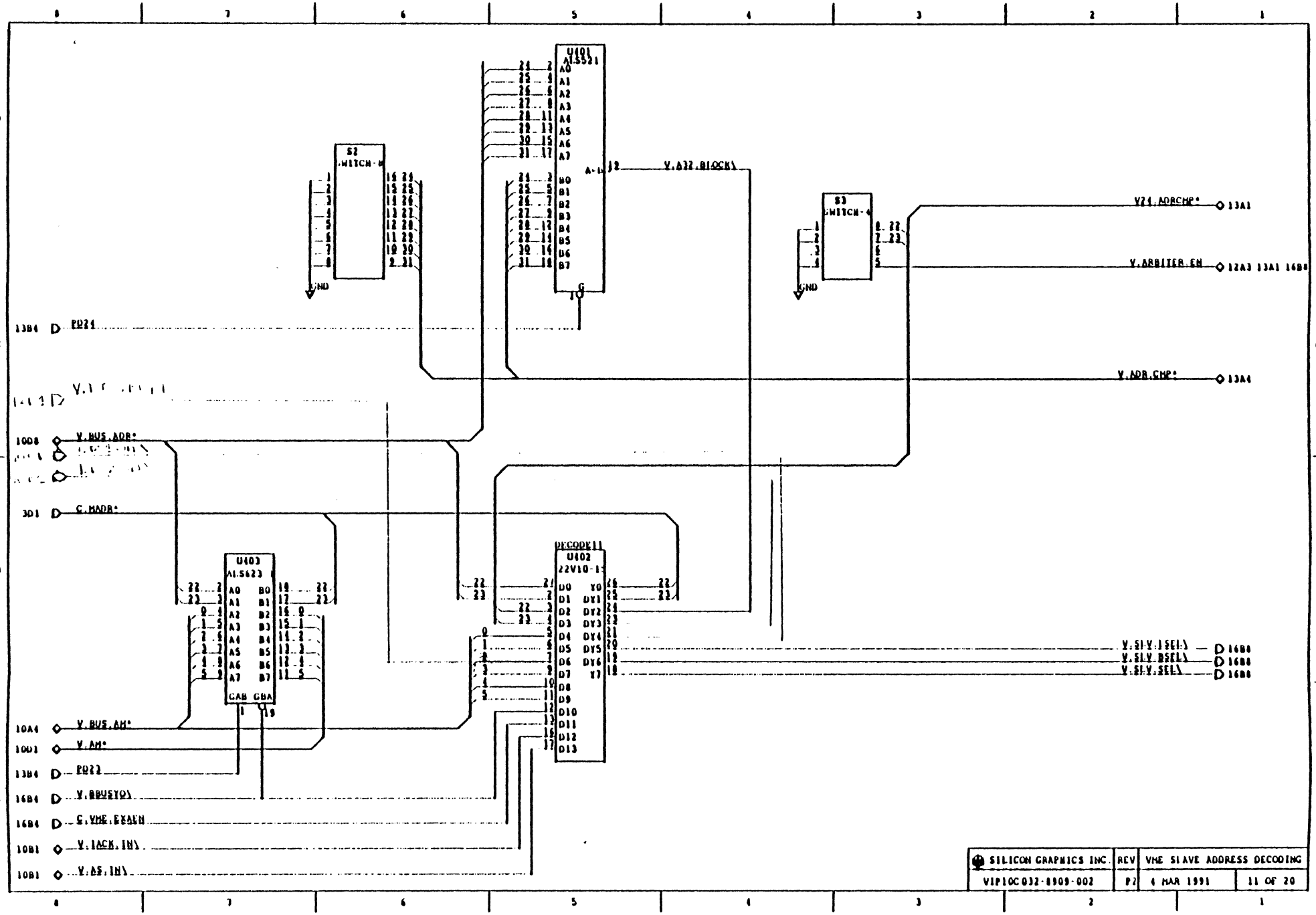
U401
AS521
S2
SWITCH-8
S3
SWITCH-4
GND
V.A32.BLOCK\
V24.ADRCMP*
V.ARBITER.EN
V.ADR.CMP*
P024
V.BUS.ADR*
C.MADR*
DECODE11
U402
22V10-15
U403
AS623
V.BUS.AM*
V.AM*
P023
V.BBUSY0\
C.VME.ERASE
V.IACK.IN\
V.AS.IN\
V.SI.V.ISEL\
V.SI.V.BSEL\
V.SI.V.SEL\
SILICON GRAPHICS INC.
VIP10C032-8909-002
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P2
VME SLAVE ADDRESS DECODING
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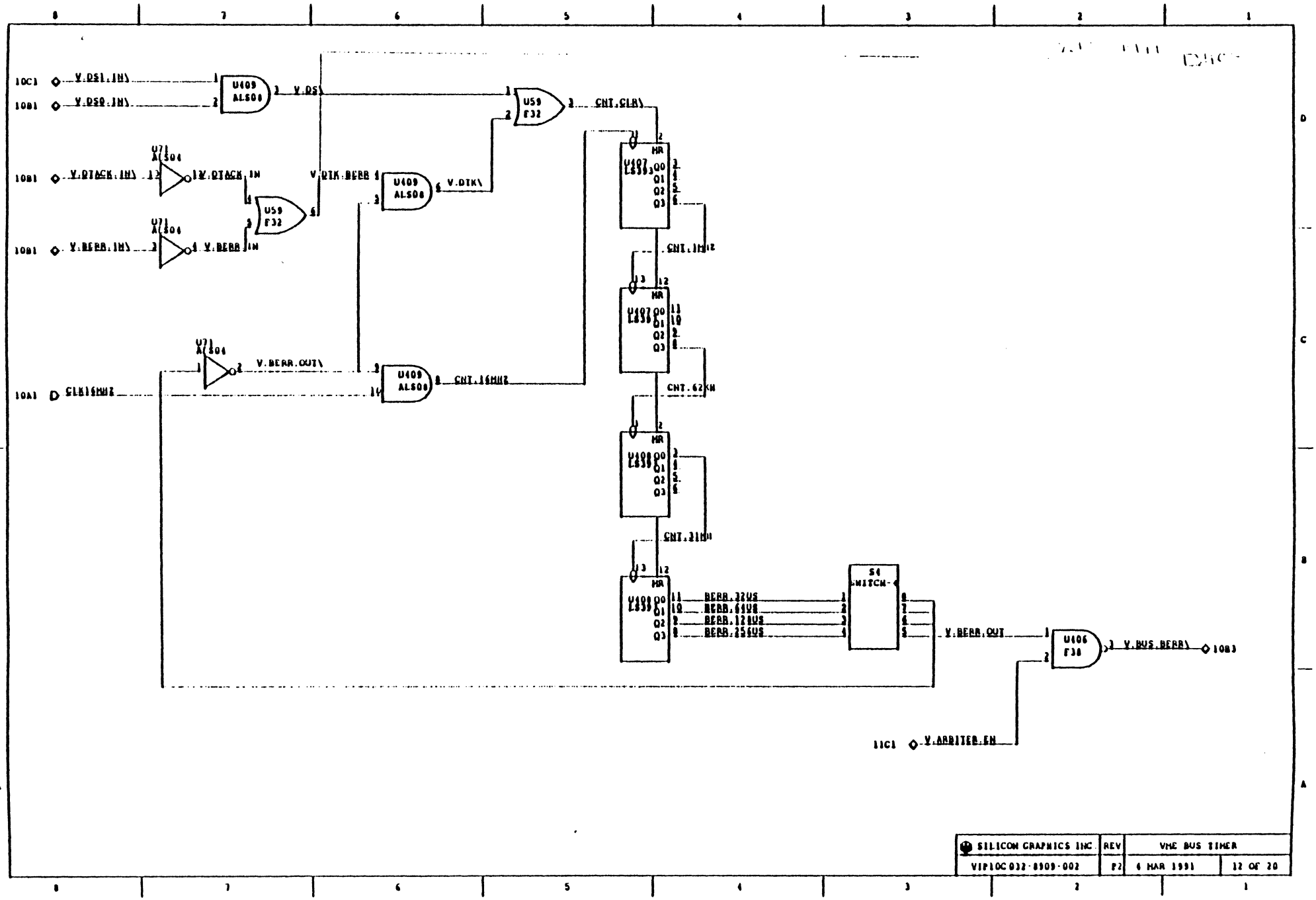

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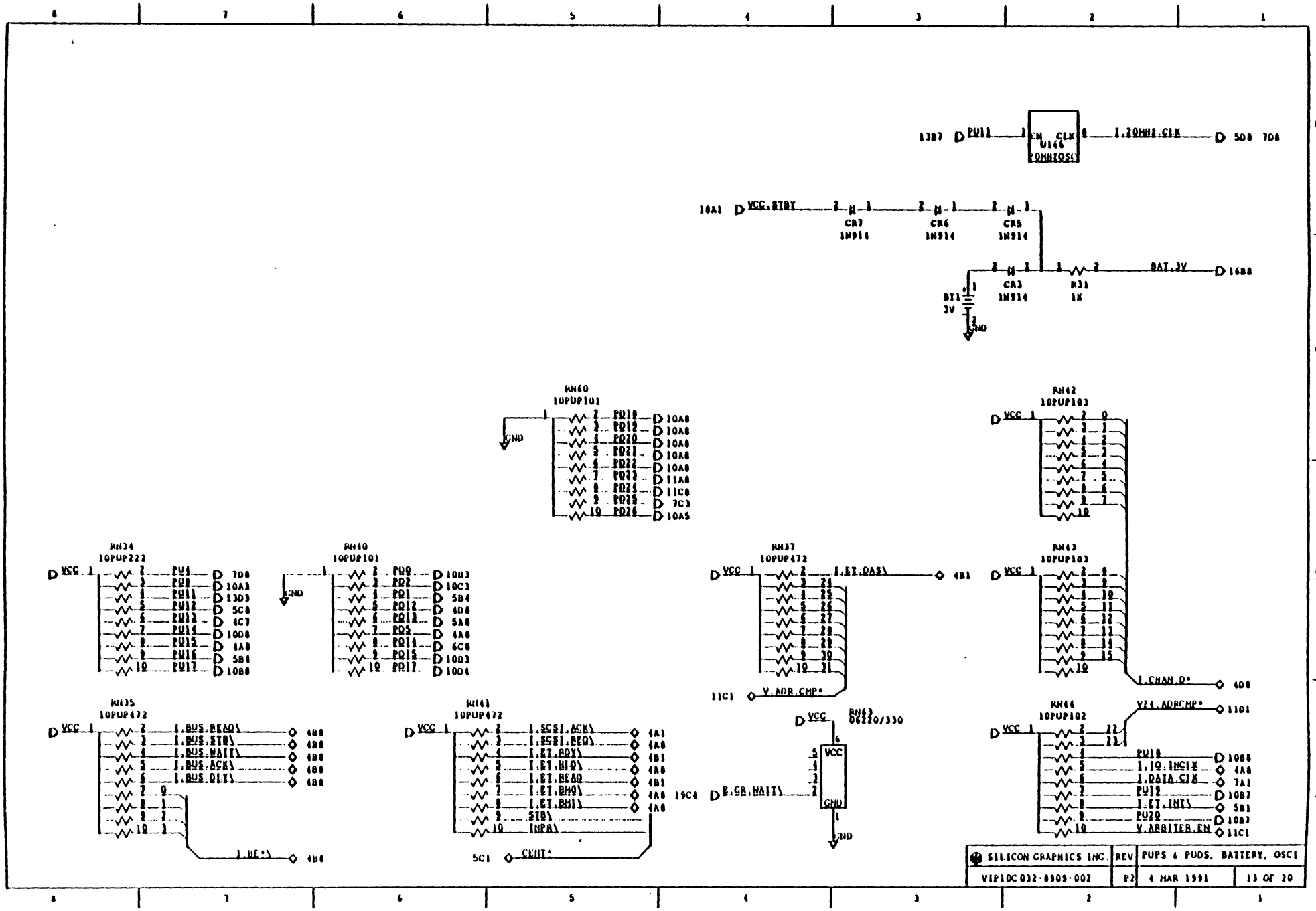
U166
20MHZOSC
1.20MHZ.CLK
BAT.3V
CR7 1N914
CR6 1N914
CR5 1N914
CR3 1N914
R31 1K
BT1 3V
RN60 10PUP101
RN62 10PUP103
RN34 10PUP222
RN40 10PUP101
RN37 10PUP472
RN63 10PUP103
RN35 10PUP472
RN41 10PUP472
RN43 0220/330
RN44 10PUP102
1.CHAN.D*
V.ADR.CMP*
E.GR.WAIT\
CINIT*
1.IO.INCLK
1.DATA.CLK
I.ET.INT\
V.ARBITER.EN
SILICON GRAPHICS INC.
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PUPS & PUDS, BATTERY, OSC1
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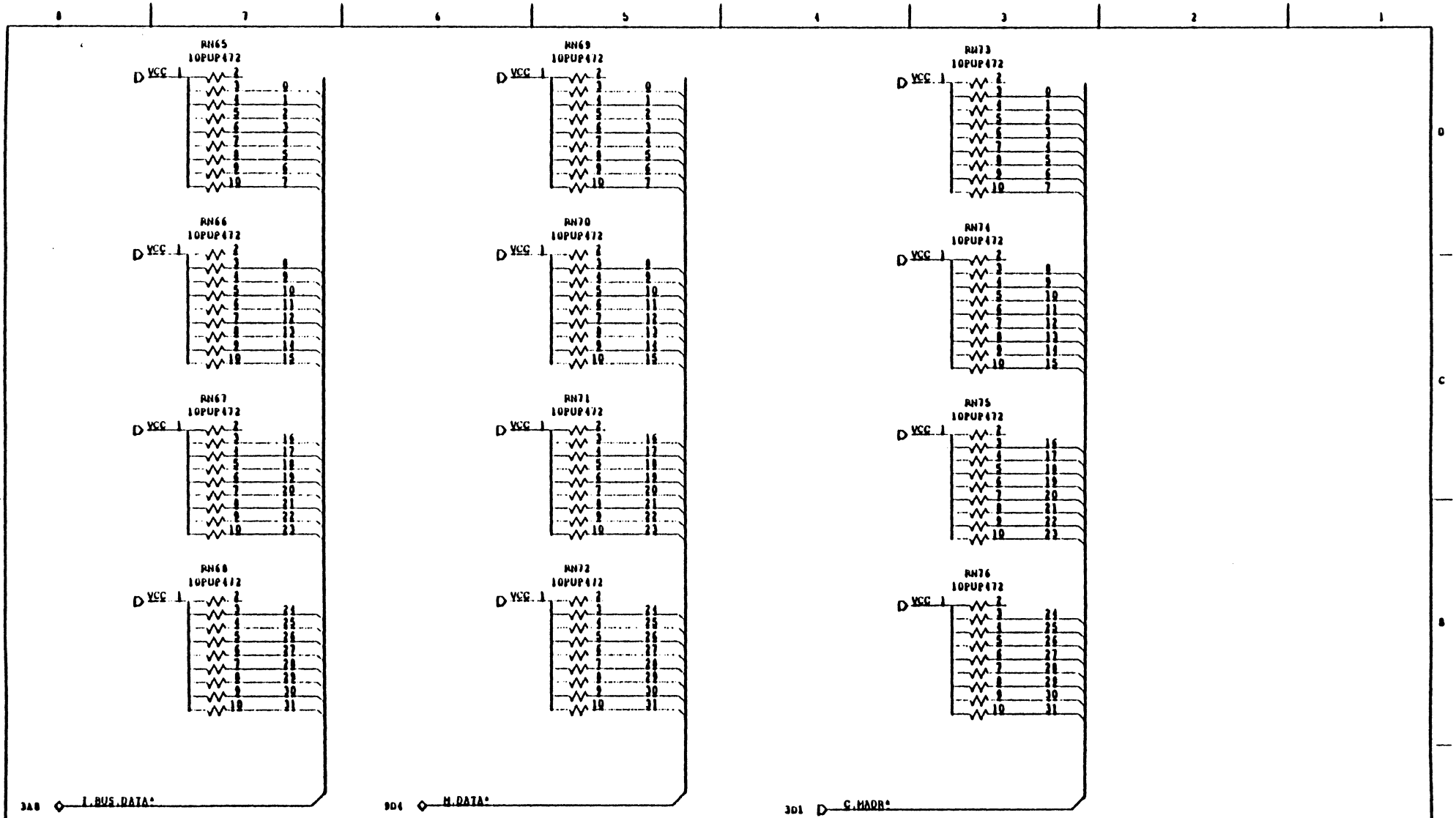
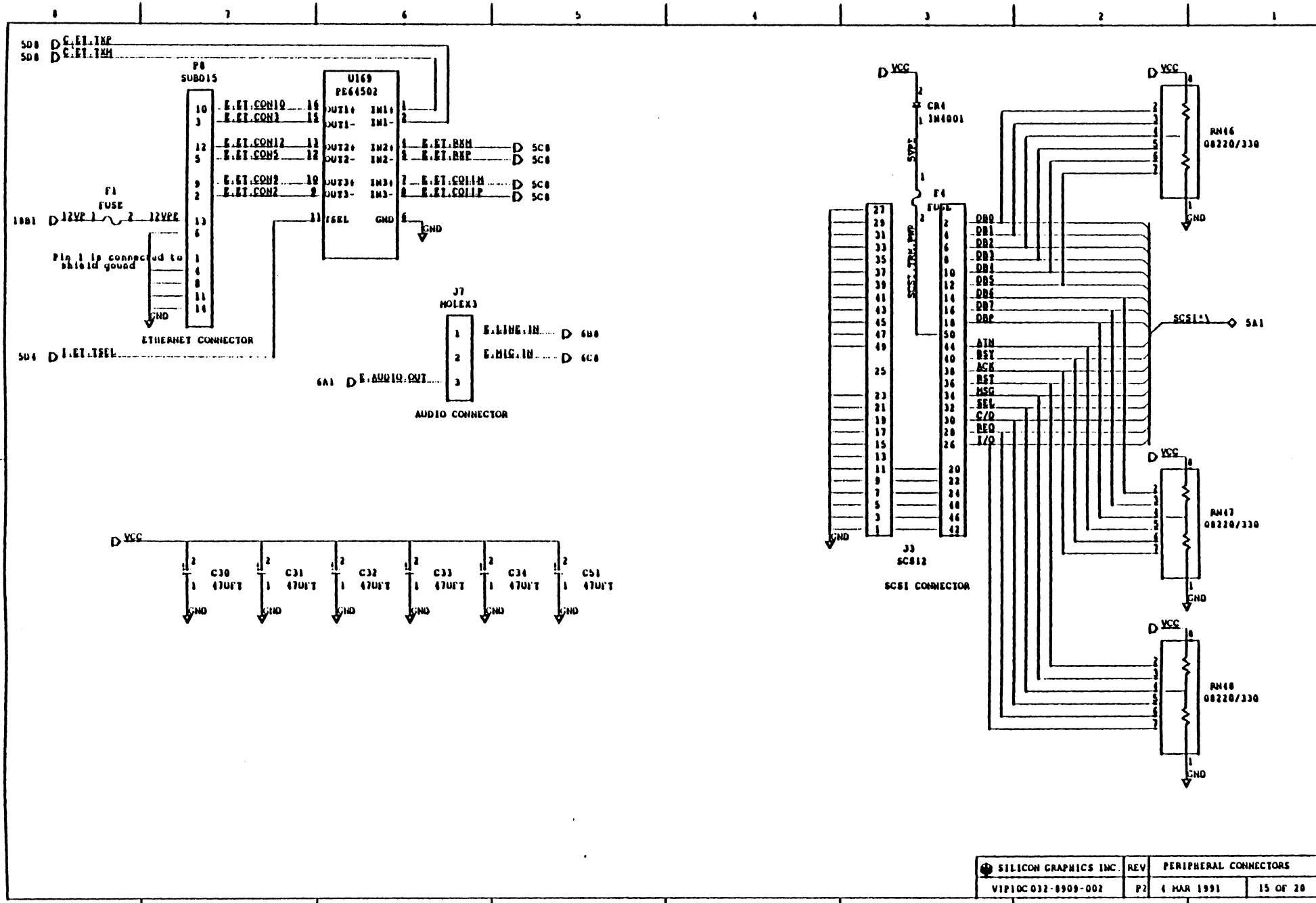
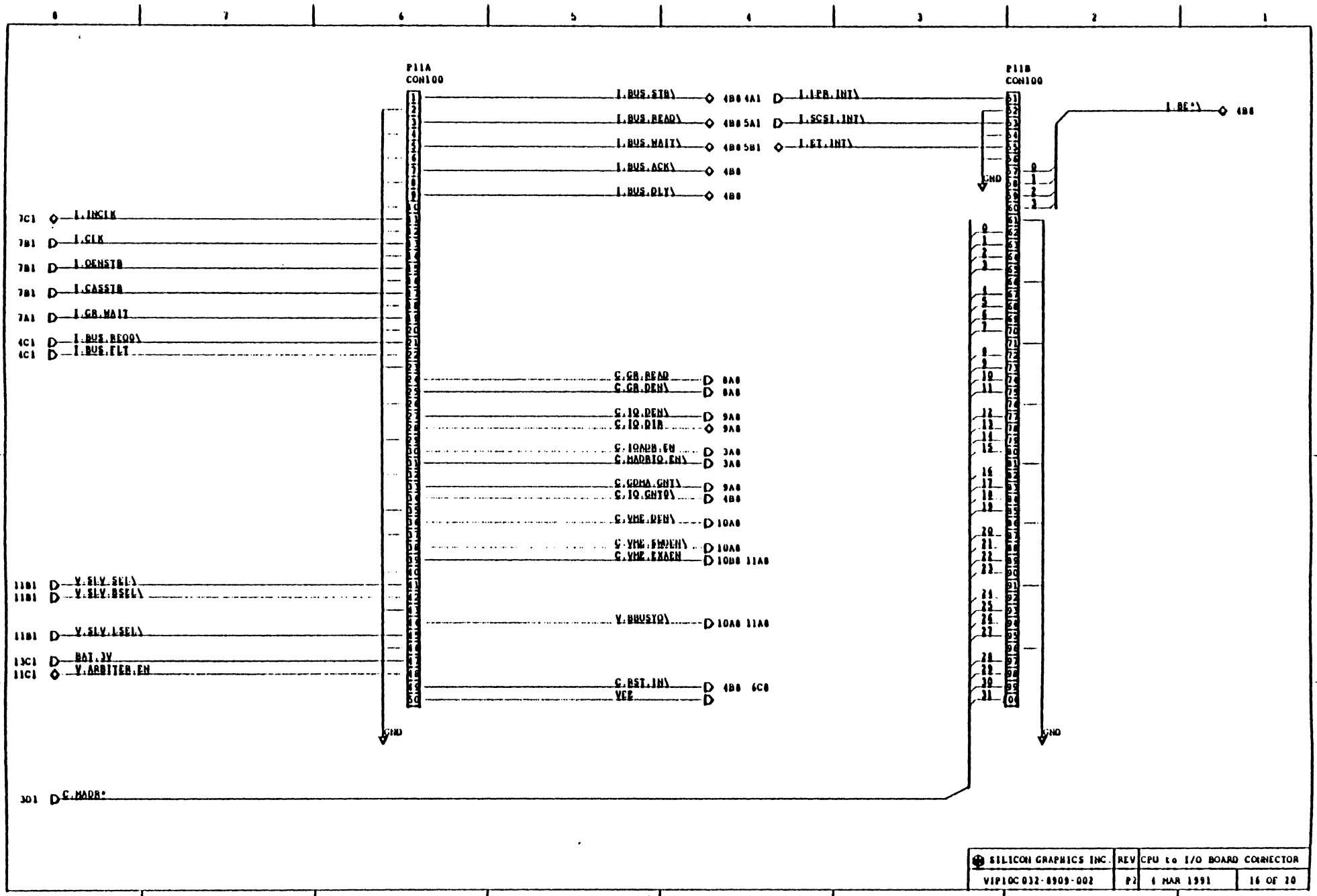


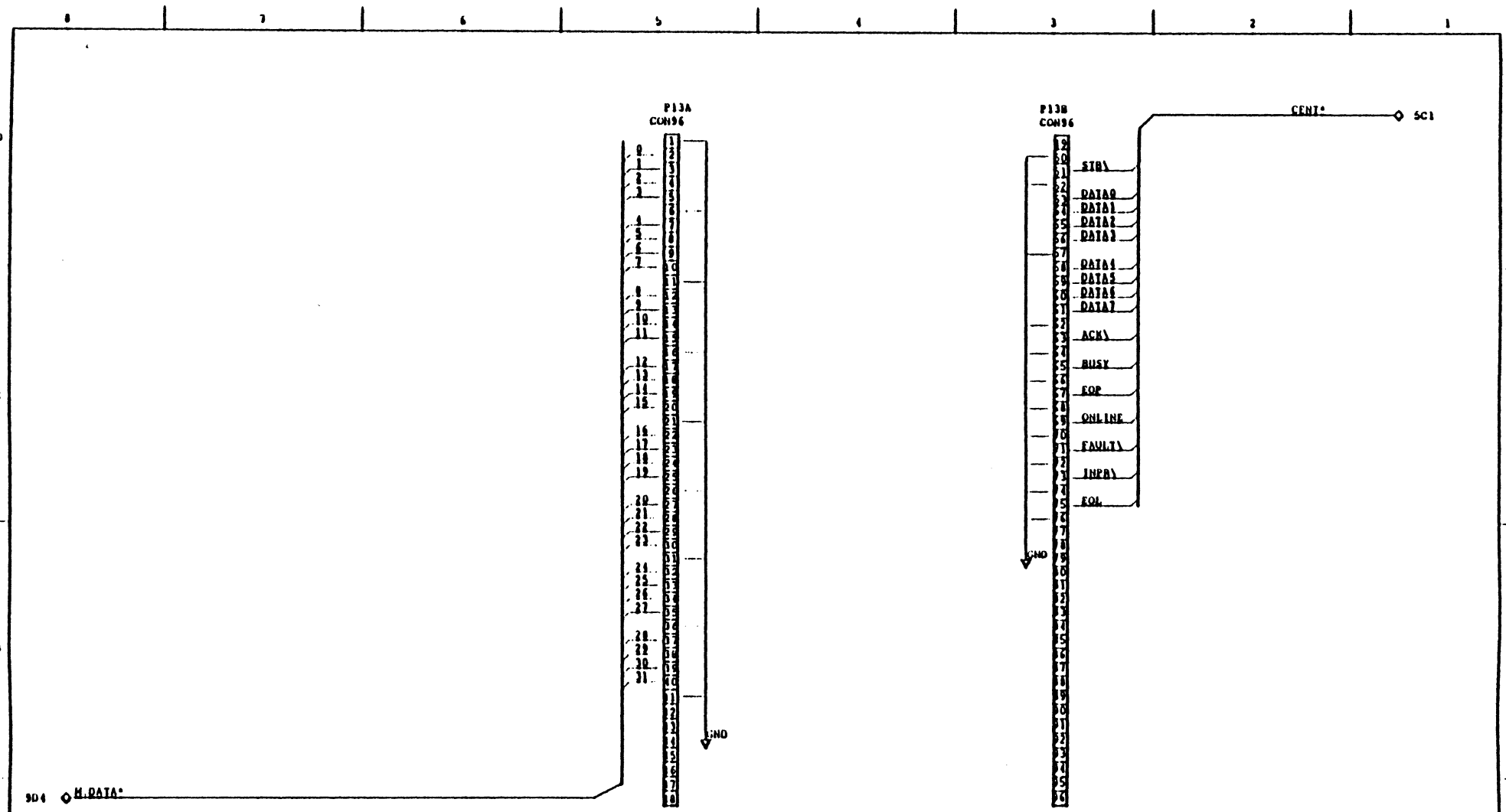
SILICON GRAPHICS INC.	REV	BUS PUPS	
VIP10C032-8909-002	B2	6 MAR 1991	14 OF 20



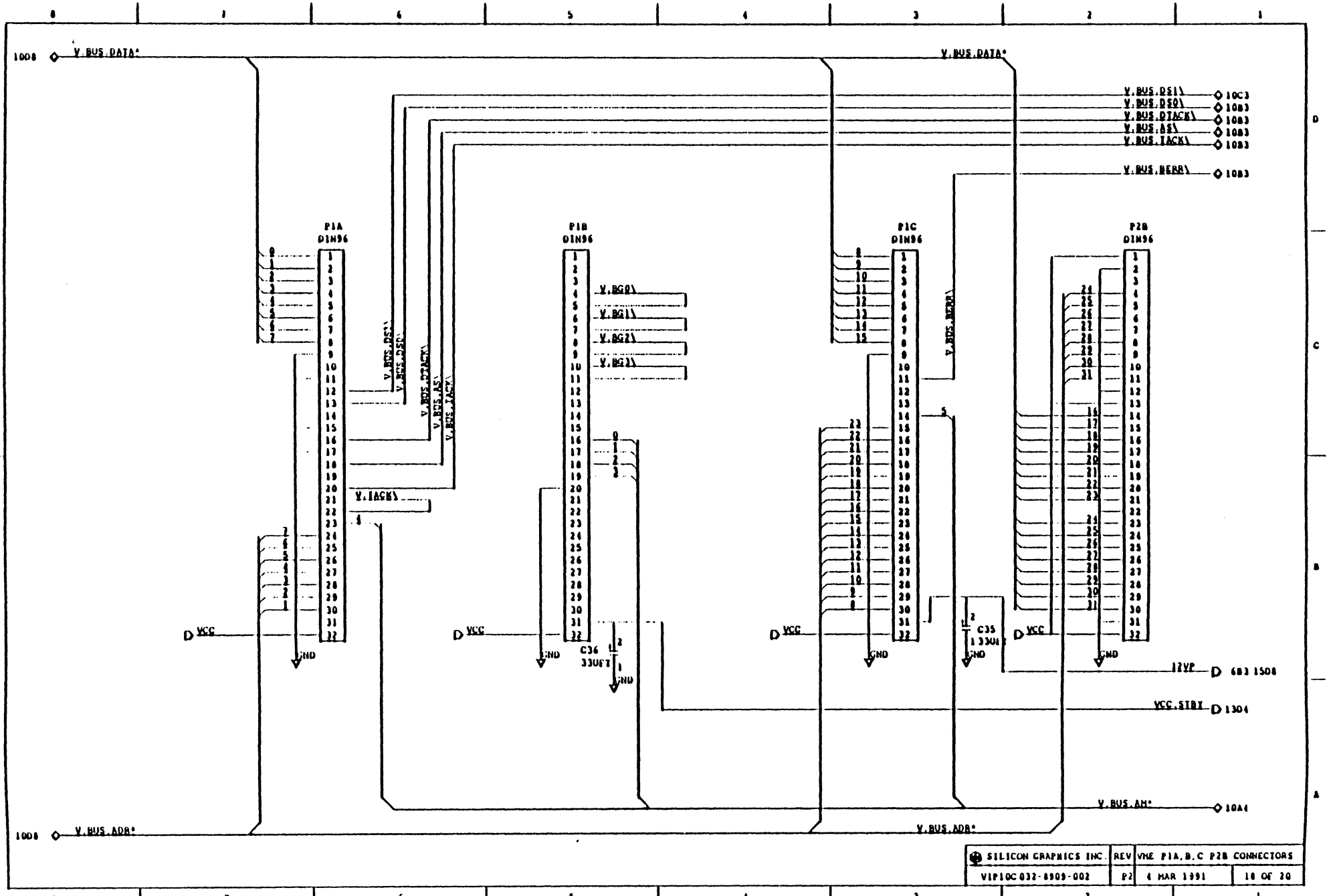
SILICON GRAPHICS INC.	REV	PERIPHERAL CONNECTORS	
VIP10C032-8909-002	P2	4 MAR 1991	15 OF 20



SILICON GRAPHICS INC.	REV	CPU to I/O BOARD CONNECTOR	
VIP10C032-8909-002	P2	6 MAR 1991	16 OF 20



SILICON GRAPHICS INC.	REV	I/O to MEMORY BRD CONNECTOR	
VIP10C032-8909-002	P2	4 MAR 1991	17 OF 20


V.BUS.DATA*
V.BUS.DS1\
V.BUS.DS0\
V.BUS.DTACK\
V.BUS.AS\
V.BUS.IACK\
V.BUS.BERR\
P1A DIN96
P1B DIN96
P1C DIN96
P2B DIN96
V.BG0\
V.BG1\
V.BG2\
V.BG3\
V.IACK\
VCC
GND
C36 330PF
C35 1.33UF
12VP
VCC.STBY
V.BUS.AM*
V.BUS.ADR*
SILICON GRAPHICS INC.
VIP10C032-8909-002
REV P2
VME P1A,B,C P2B CONNECTORS
4 MAR 1991
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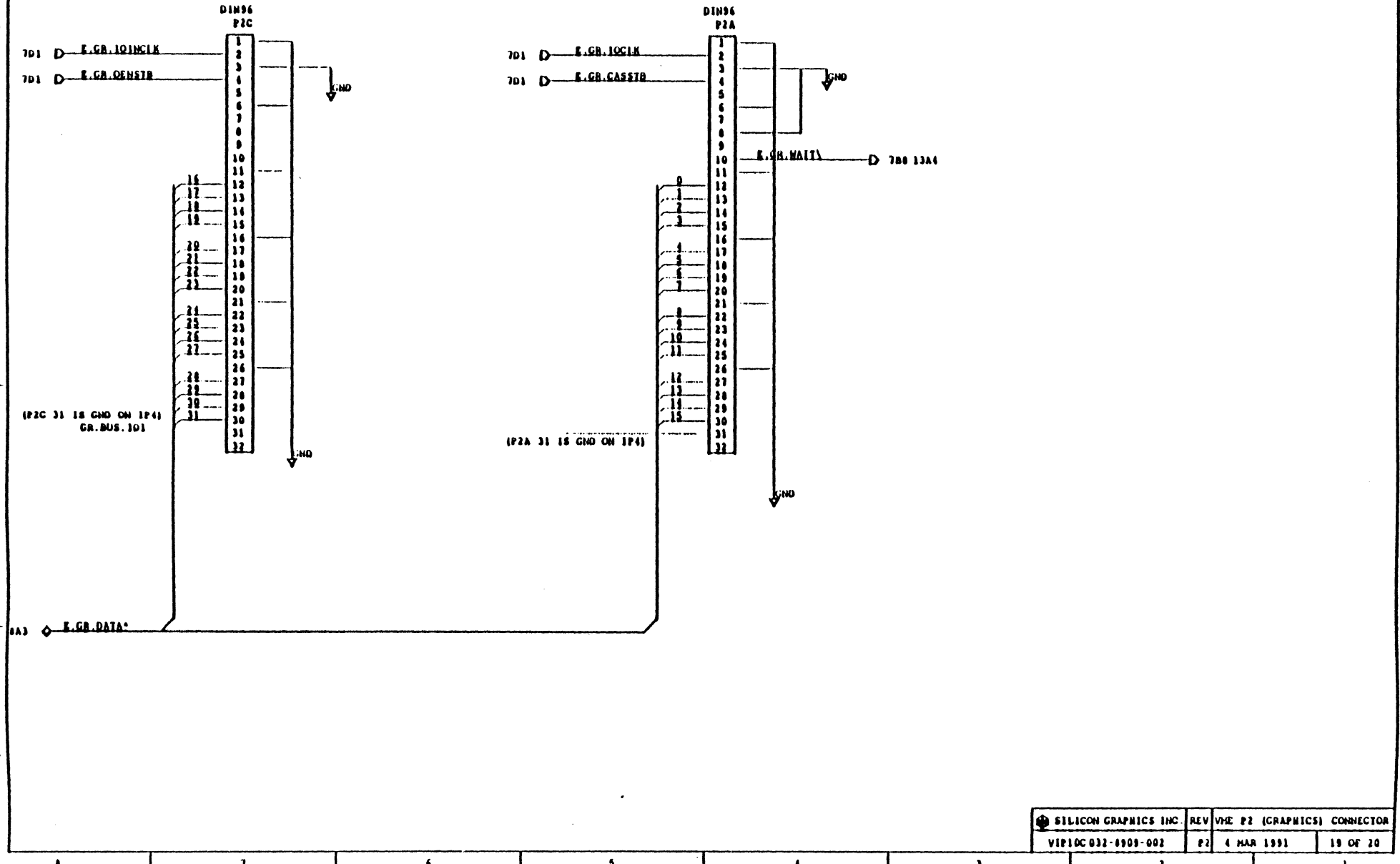
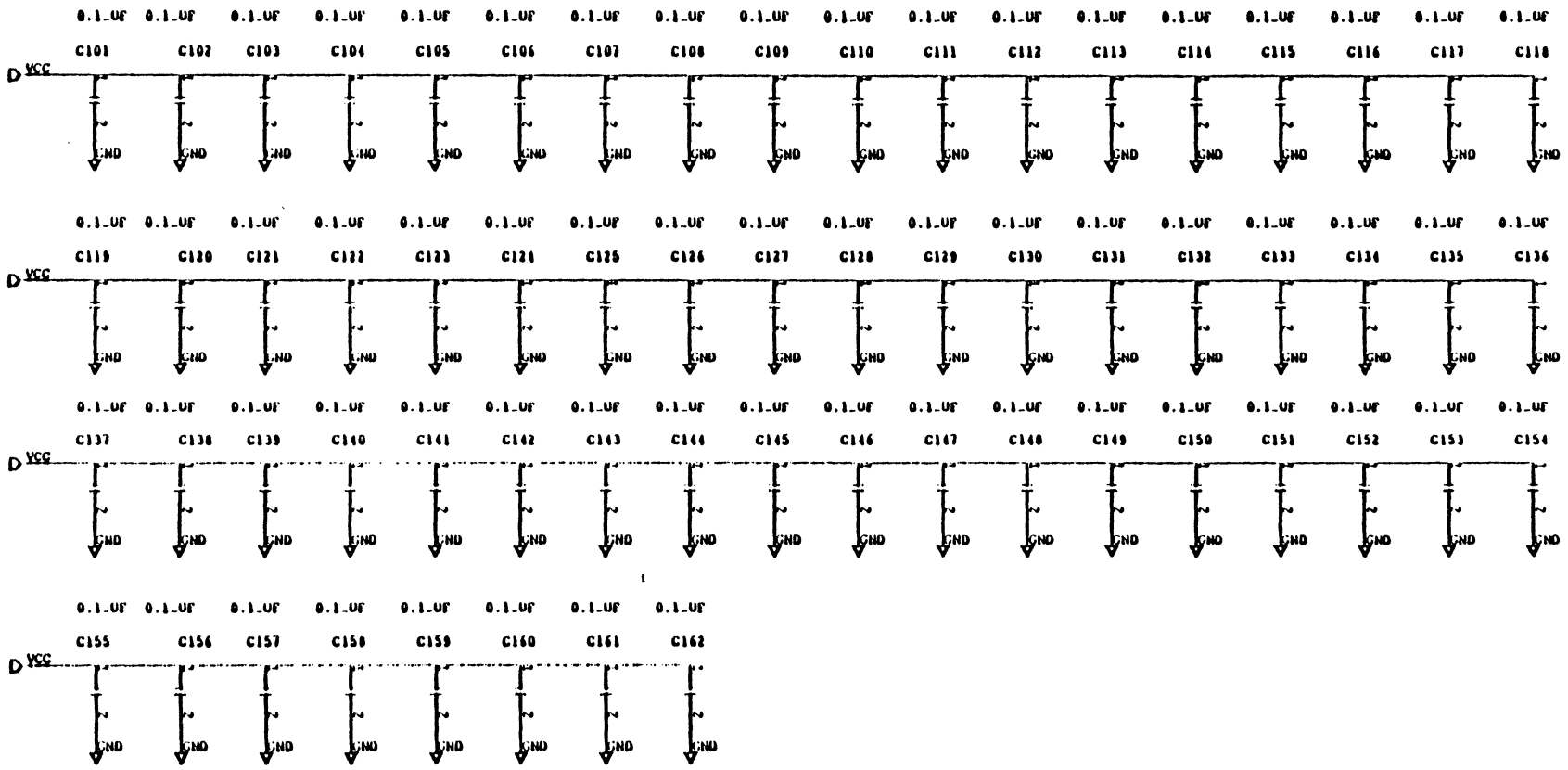


SILICON GRAPHICS INC.	REV	VME P2 (GRAPHICS) CONNECTOR	
VIP10C032-0909-002	P2	4 MAR 1991	19 OF 20



ALL BYPASS CAPACITORS TO BE PLACED ON BACK SIDE OF BOARD

SILICON GRAPHICS INC.	REV	BYPASS CAPACITORS	
VIP10C032-0909-002	P2	4 MAR 1991	20 OF 20

REVISIONS				
ZONE	REV	DESCRIPTION	DATE	APPROVED

APPLICATIONS				
		dtw		
		chk		
		iss.		
030 8029				
NEXT ASSEMBLY	USED ON	APPROVALS	DATE	

SILICON GRAPHICS INC.

VIP10_MEM

NUM.	DRAWING NUMBER	REV	DATE	SHEET
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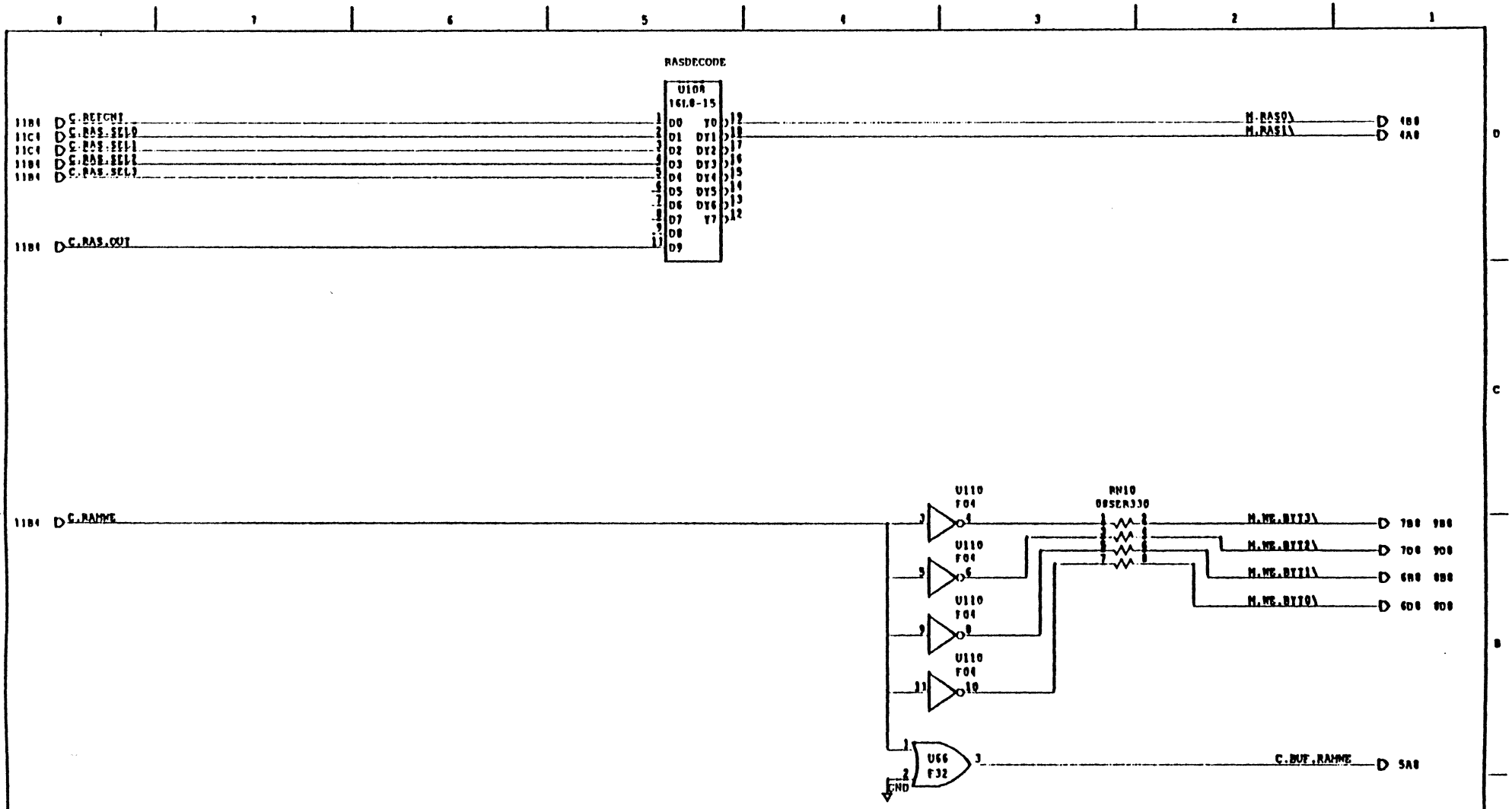
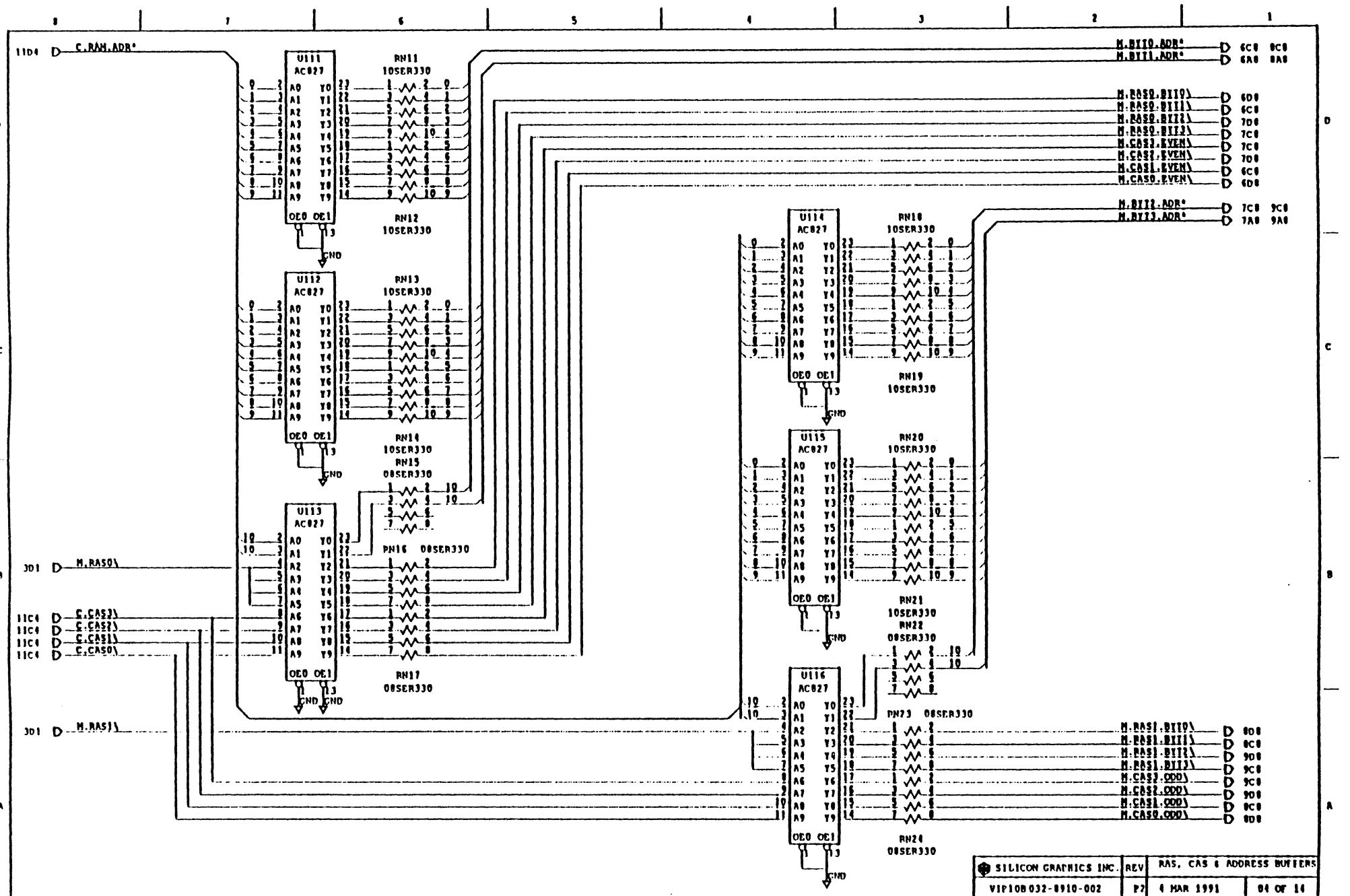
PAGE #	DESCRIPTION
03	RAS DECODER AND WE BUFFERS
04	RAS,CAS AND ADDRESS BUFFERS
05	PARITY GENERATION AND CHECK
06	MEMORY BANK 0, BYTE 0,1
07	MEMORY BANK 0, BYTE 2,3
08	MEMORY BANK 1, BYTE 0,1
09	MEMORY BANK 1, BYTE 2,3
10	I/O CONNECTOS
11	CPU to MEMORY BOARD CONNECTOR
12	I/O to MEMORY BOARD CONNECTOR
13	VME P1 AND P2 CONNECTORS
14	BYPASS CAPACITORS

SILICON GRAPHICS INC.	REV	TABLE OF CONTENTS	
VIP10B032-0910-002	P2	4 MAR 1991	2 OF 14



SILICON GRAPHICS INC.	REV	RAS DECODE AND WE BUFFERS	
VIP10B032-0910-002	P2	6 MAR 1991	03 OF 14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M.RAS0\
C.CAS3\
C.CAS2\
C.CAS1\
C.CAS0\
M.RAS1\
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M.BIT1.ADR*
M.RAS0.BIT0\
M.RAS0.BIT1\
M.RAS0.BIT2\
M.RAS0.BIT3\
M.CAS3.EVEN\
M.CAS2.EVEN\
M.CAS1.EVEN\
M.CAS0.EVEN\
M.BIT2.ADR*
M.BIT3.ADR*
M.RAS1.BIT0\
M.RAS1.BIT1\
M.RAS1.BIT2\
M.RAS1.BIT3\
M.CAS3.ODD\
M.CAS2.ODD\
M.CAS1.ODD\
M.CAS0.ODD\
U111 AC827
U112 AC827
U113 AC827
U114 AC827
U115 AC827
U116 AC827
RN11 10SER330
RN12 10SER330
RN13 10SER330
RN14 10SER330
RN15 08SER330
RN16 08SER330
RN17 08SER330
RN18 10SER330
RN19 10SER330
RN20 10SER330
RN21 10SER330
RN22 08SER330
RN23 08SER330
RN24 08SER330
SILICON GRAPHICS INC.
REV
RAS, CAS & ADDRESS BUFFERS
VIP10B032-0910-002
P2
4 MAR 1991
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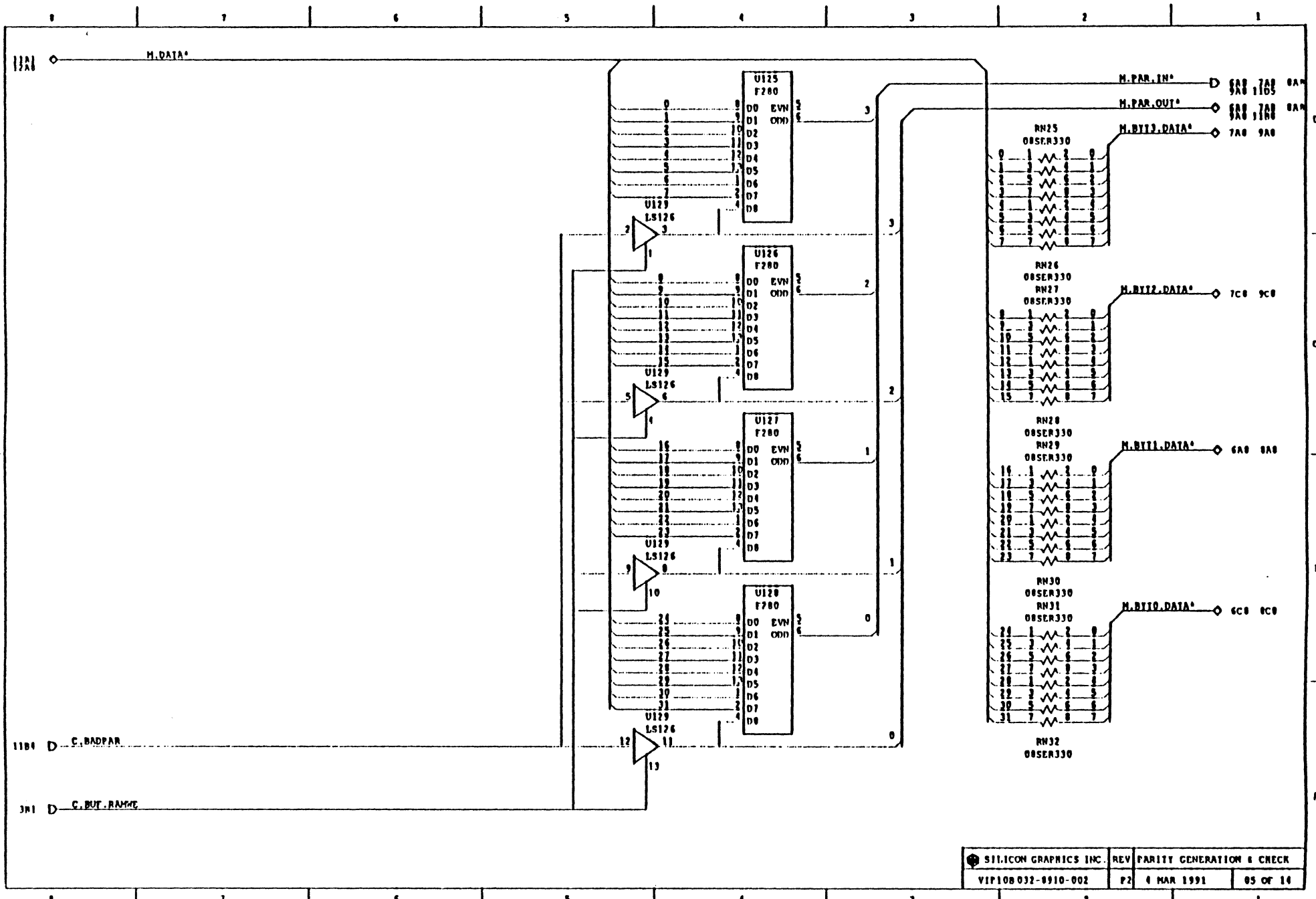
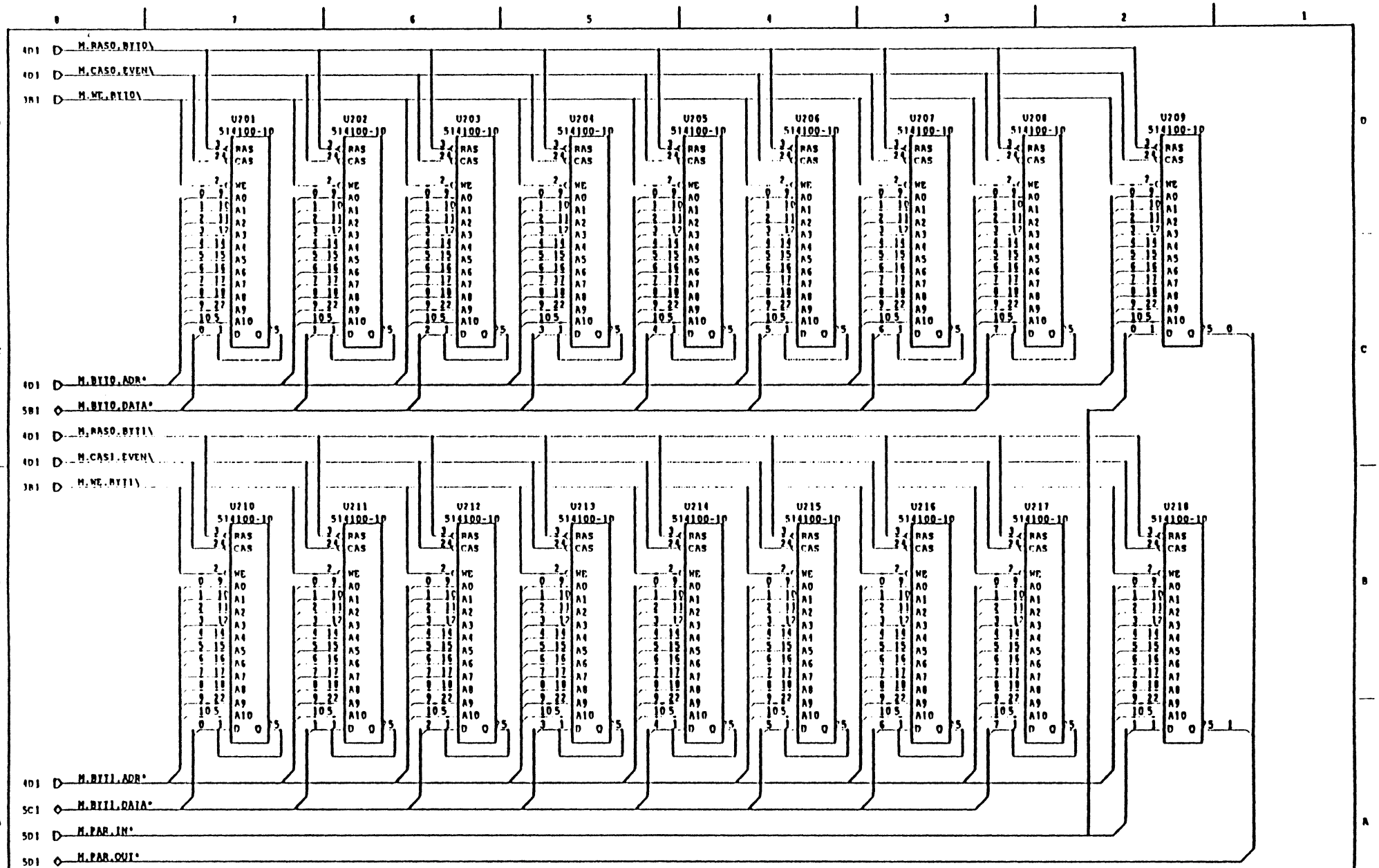


SILICON GRAPHICS INC.	REV	PARITY GENERATION & CHECK
VIP10B032-0910-002	P2	4 MAR 1991	05 OF 14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4D1 M.CAS0.EVEN\
3B1 M.WE.BYT0\
U201 514100-10
U202 514100-10
U203 514100-10
U204 514100-10
U205 514100-10
U206 514100-10
U207 514100-10
U208 514100-10
U209 514100-10
RAS
CAS
WE
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
D Q
4D1 M.BYT0.ADR*
5B1 M.BYT0.DATA*
4D1 M.RAS0.BYT1\
4D1 M.CAS1.EVEN\
3B1 M.WE.BYT1\
U210 514100-10
U211 514100-10
U212 514100-10
U213 514100-10
U214 514100-10
U215 514100-10
U216 514100-10
U217 514100-10
U218 514100-10
4D1 M.BYT1.ADR*
5C1 M.BYT1.DATA*
5D1 M.PAR.IN*
5D1 M.PAR.OUT*
SILICON GRAPHICS INC.
REV
BANK 0, BYTS 0,1
VIP10B032-0910-002
P2
4 MAR 1991
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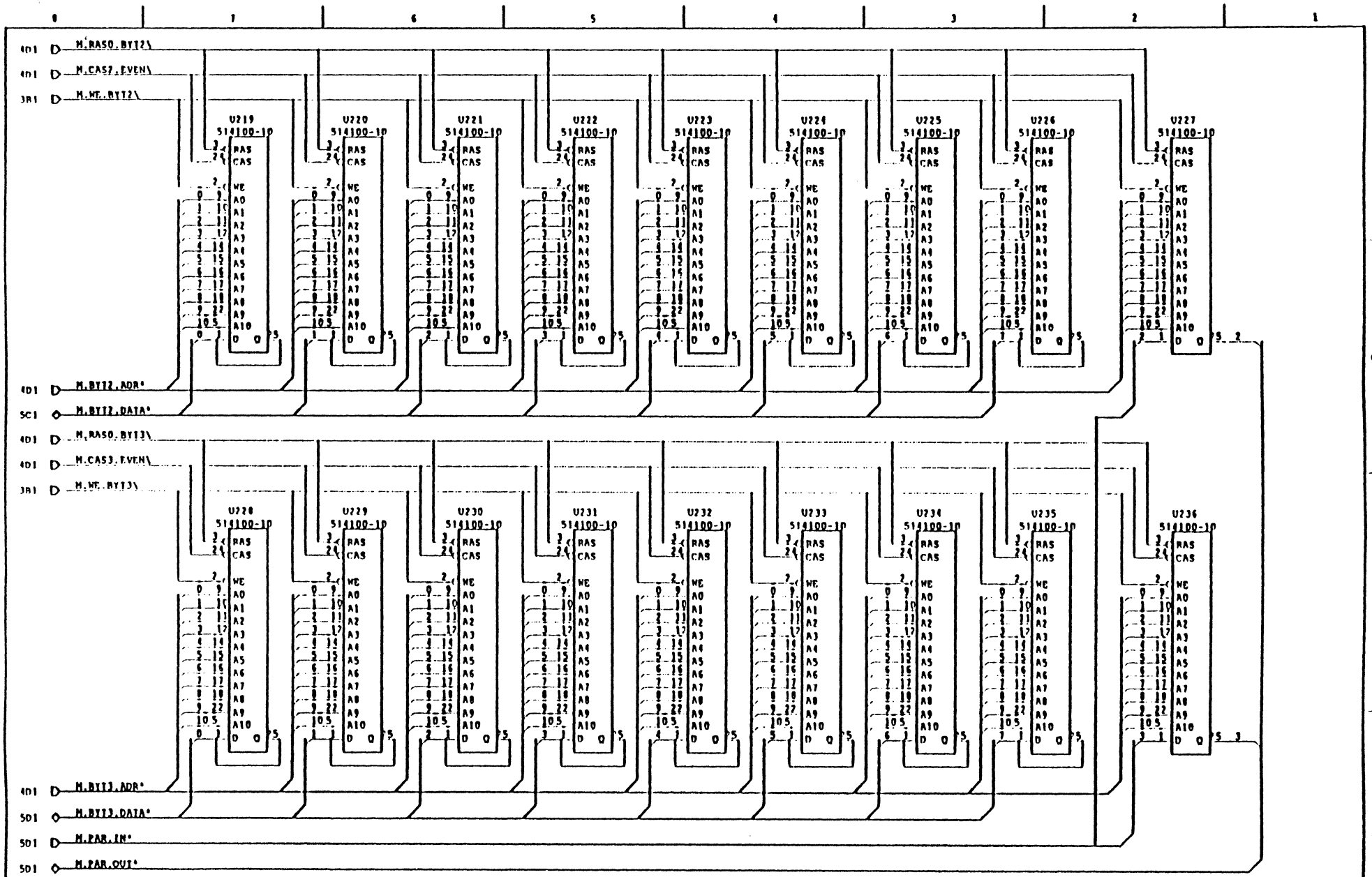
4D1 M.RAS0.BYT2\
4D1 M.CAS?.EVEN\
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U219 514100-10
U220 514100-10
U221 514100-10
U222 514100-10
U223 514100-10
U224 514100-10
U225 514100-10
U226 514100-10
U227 514100-10
RAS
CAS
WE
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
D Q
4D1 M.BYT2.ADR*
5C1 M.BYT2.DATA*
4D1 M.RAS0.BYT3\
4D1 M.CAS3.EVEN\
3B1 M.WE.BYT3\
U228 514100-10
U229 514100-10
U230 514100-10
U231 514100-10
U232 514100-10
U233 514100-10
U234 514100-10
U235 514100-10
U236 514100-10
4D1 M.BYT3.ADR*
5D1 M.BYT3.DATA*
5D1 M.PAR.IN*
5D1 M.PAR.OUT*
SILICON GRAPHICS INC.
REV
BANK 0, .BYTS 2,3
VIP10B032-0910-002
P2
4 MAR 1991
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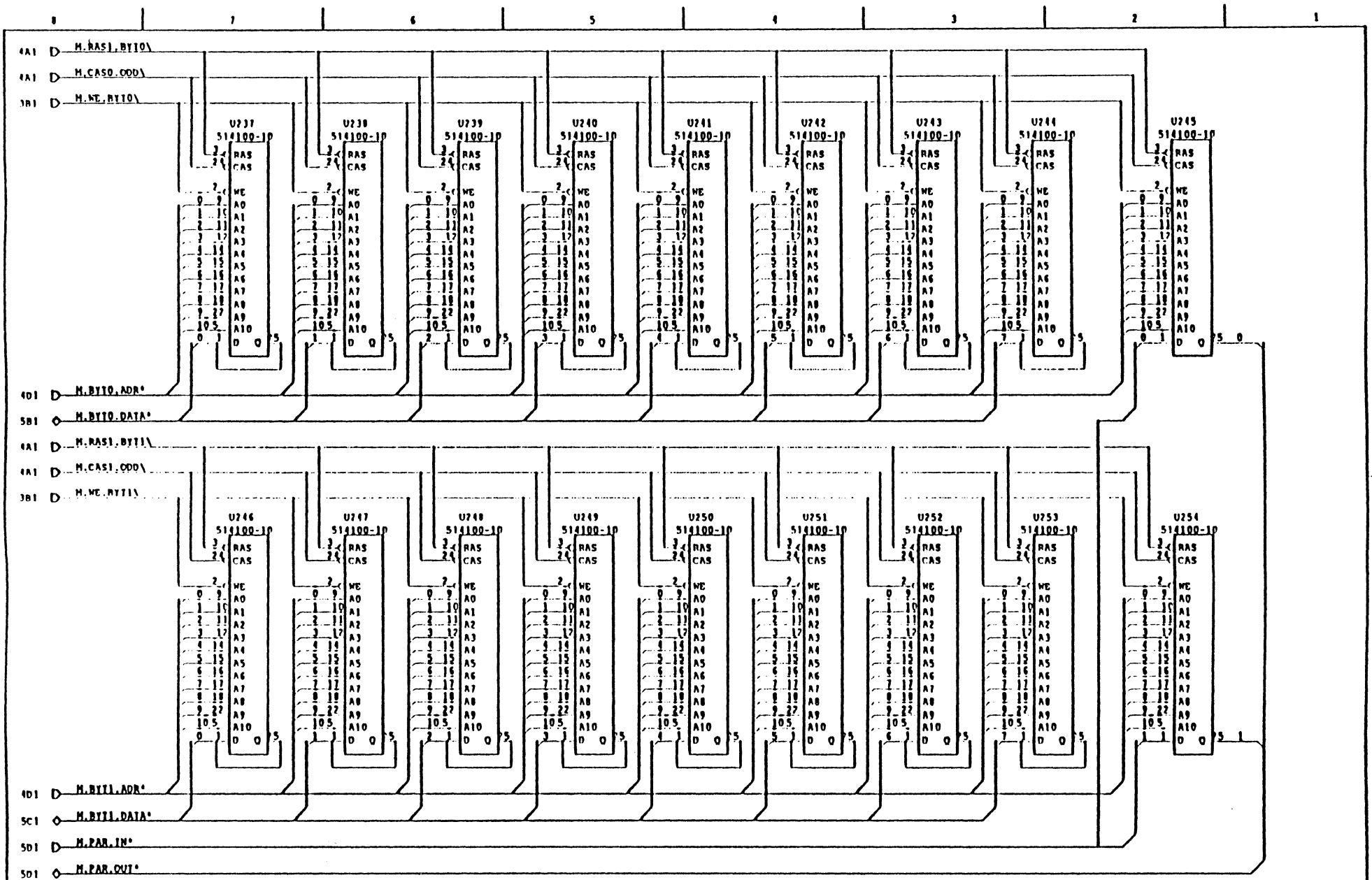
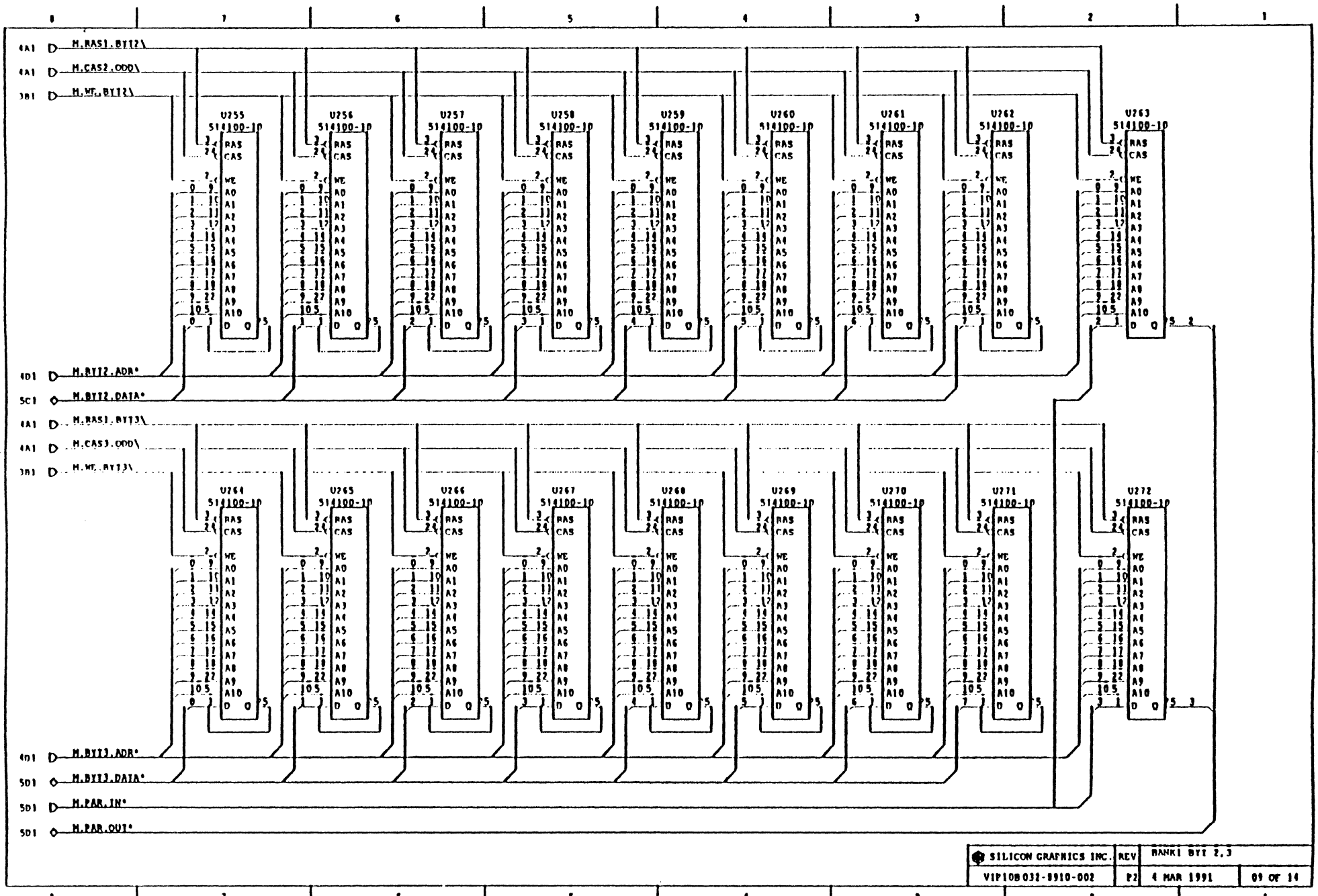


SILICON GRAPHICS INC.	REV	BANK 1, BYTS 0,1	
VIP108032-0910-002	P2	4 MAR 1991	08 OF 14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4A1 M.CAS2.ODD\
3B1 M.WE.BYT2\
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U256 514100-10
U257 514100-10
U258 514100-10
U259 514100-10
U260 514100-10
U261 514100-10
U262 514100-10
U263 514100-10
RAS
CAS
WE
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
D Q
4D1 M.BYT2.ADR*
5C1 M.BYT2.DATA*
4A1 M.RAS1.BYT3\
4A1 M.CAS3.ODD\
3B1 M.WE.BYT3\
U264 514100-10
U265 514100-10
U266 514100-10
U267 514100-10
U268 514100-10
U269 514100-10
U270 514100-10
U271 514100-10
U272 514100-10
4D1 M.BYT3.ADR*
5D1 M.BYT3.DATA*
5D1 M.PAR.IN*
5D1 M.PAR.OUT*
SILICON GRAPHICS INC.
REV
BANK1 BYT 2,3
VIP10B032-8910-002
P2
4 MAR 1991
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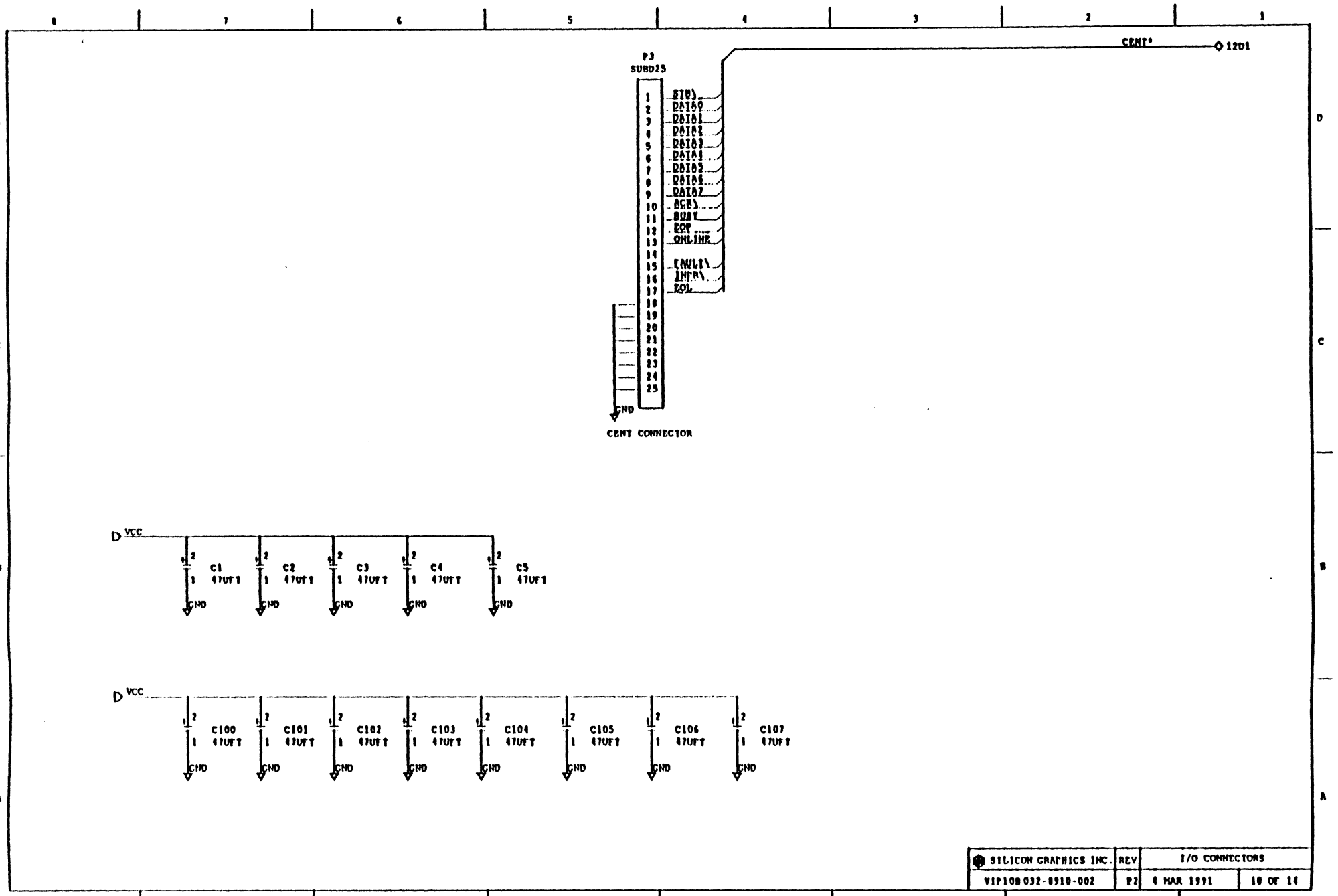

SILICON GRAPHICS INC.	REV	I/O CONNECTORS	
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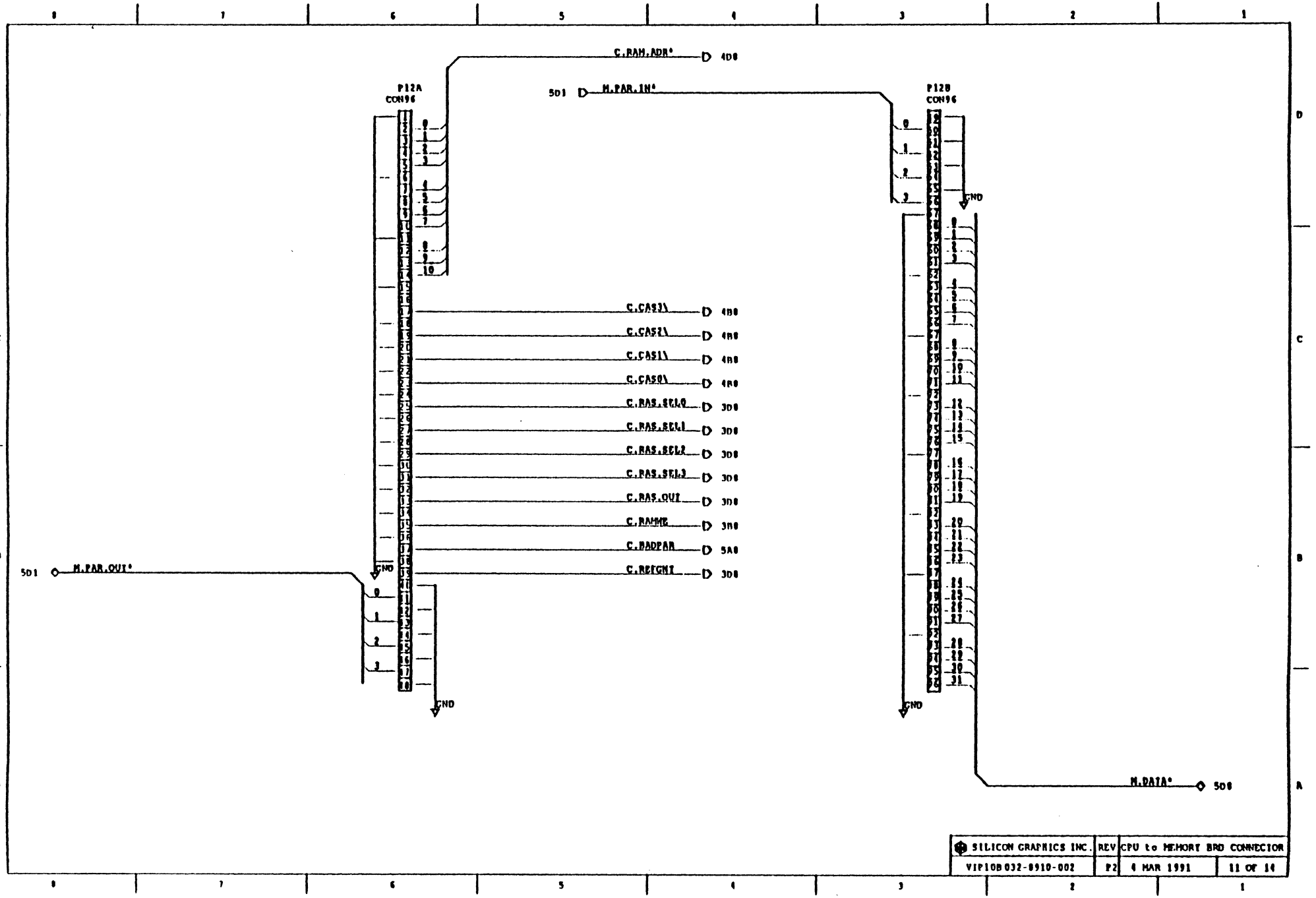
P12A
CON96
P12B
CON96
C.RAM.ADR*
4D8
5D1
M.PAR.IN*
C.CAS3\
4B8
C.CAS2\
4B8
C.CAS1\
4B8
C.CAS0\
4B8
C.RAS.SEL0
3D8
C.RAS.SEL1
3D8
C.RAS.SEL2
3D8
C.RAS.SEL3
3D8
C.RAS.OUT
3D8
C.RAMWE
3B8
C.BADPAR
5A8
C.REFGNT
3D8
5D1
M.PAR.OUT*
GND
GND
GND
M.DATA*
5D8
SILICON GRAPHICS INC.
REV
CPU to MEMORY BRD CONNECTOR
VIP10B032-0910-002
P2
6 MAR 1991
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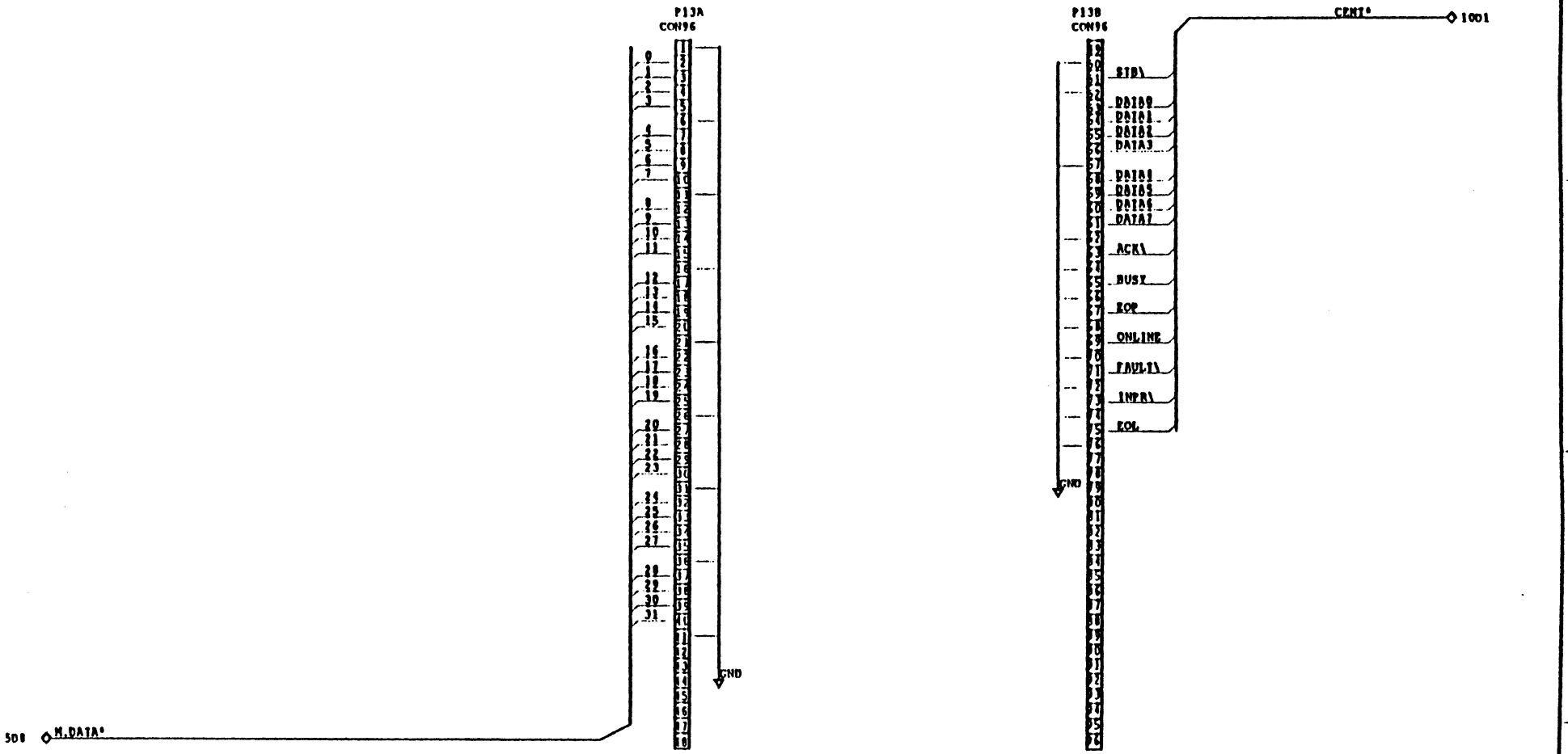

SILICON GRAPHICS INC.	REV	I/O to MEMORY BRD CONNECTOR	
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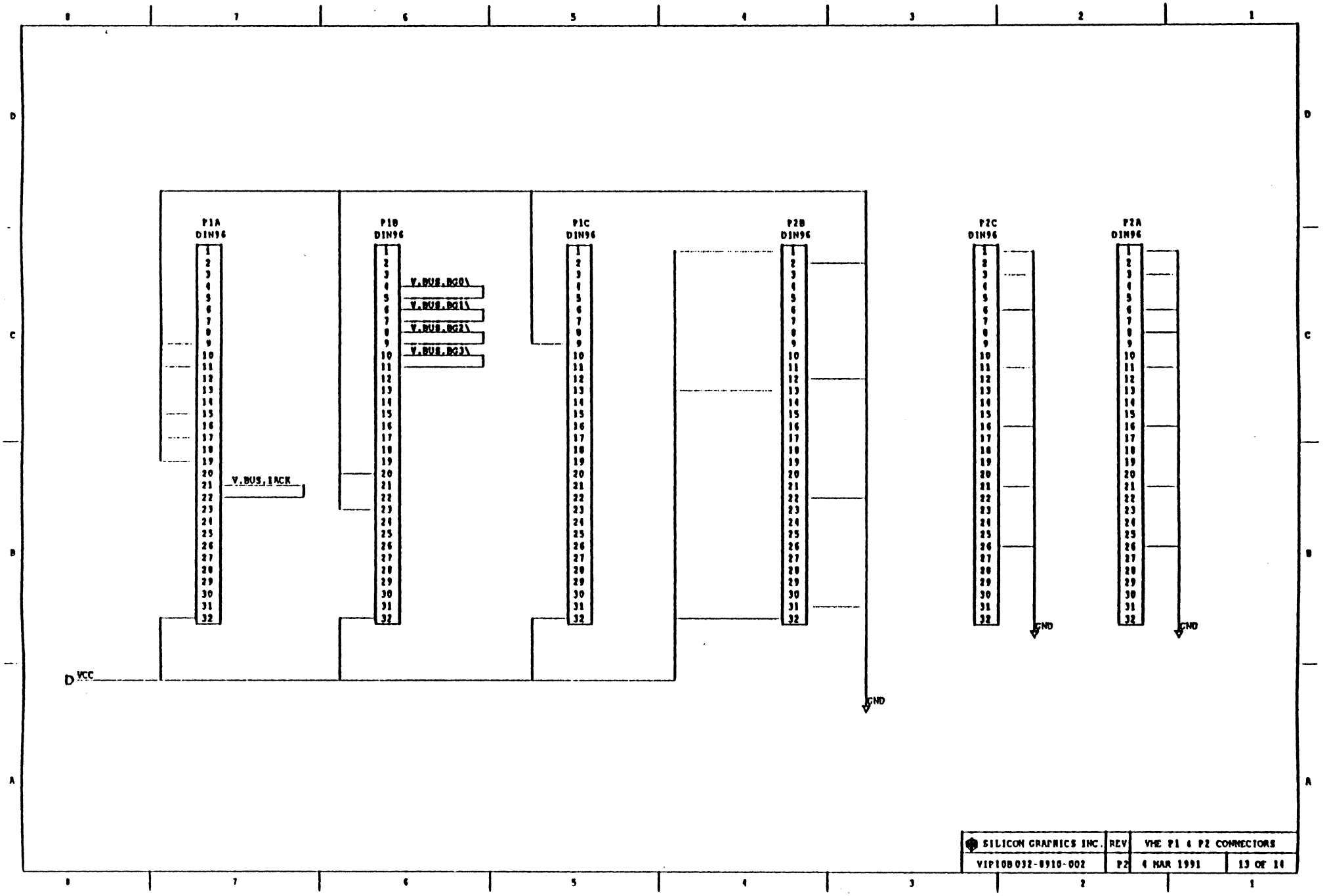

SILICON GRAPHICS INC.	REV	VME P1 & P2 CONNECTORS	
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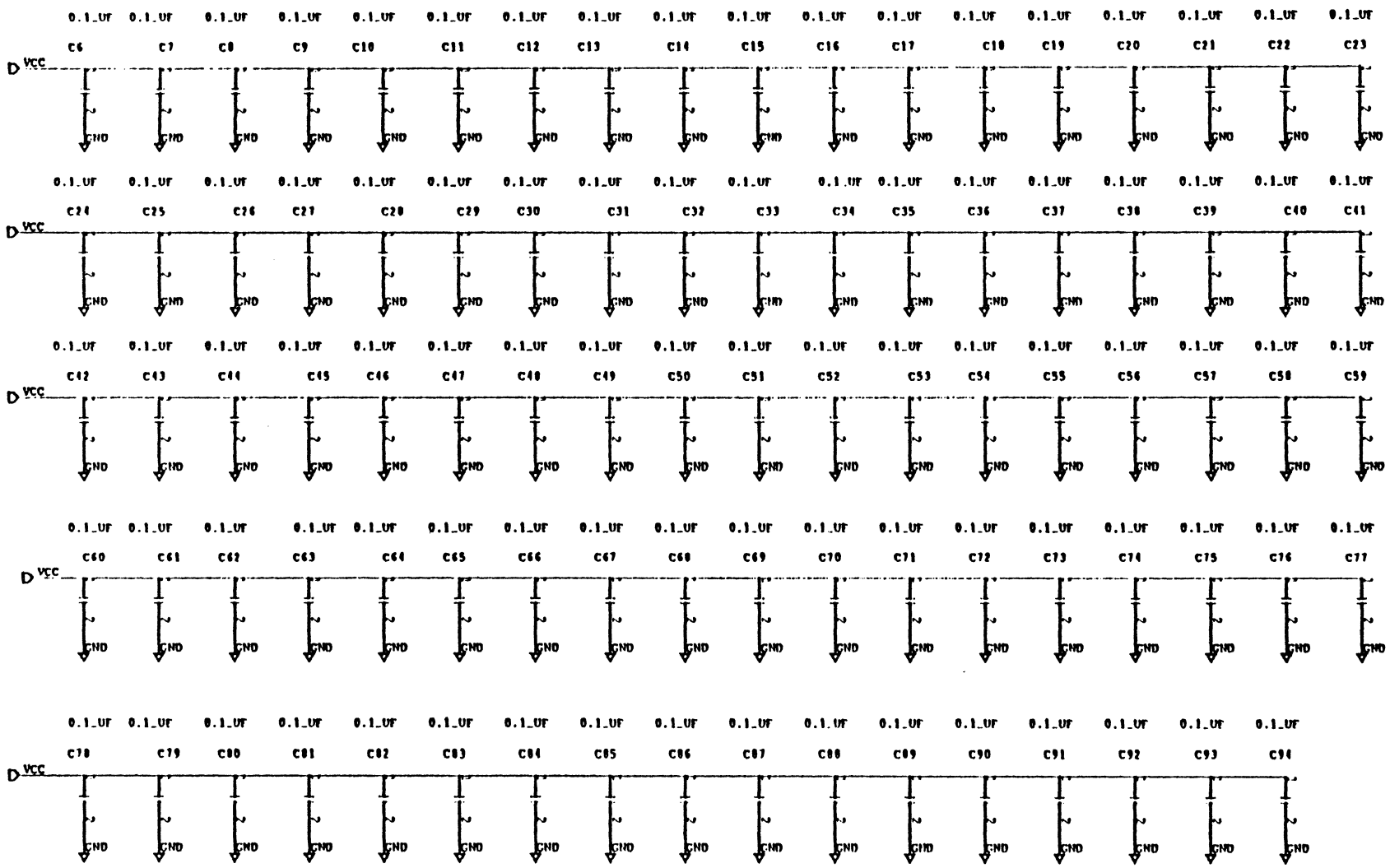

ALL BYPASS CAPACITORS TO BE PLACED ON BACK SIDE OF BOARD

SILICON GRAPHICS INC.	REV	BYPASS CAPACITORS	
VIP10B032-0910-002	P2	4 MAR 1991	14 OF 14